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CALIFORNIA

WINE, WOOL AND STOCK JOURNAL

BEING

A MONTHLY COMPENDIUM

OF ALL MATTERS CONNECTED WITH THE

Culture of Wine, Wool, Stock Raising,

TOBACCO, COTTON,

AND OTHER DOMESTIC INTERESTS ON THE PACIFIC COAST.

J. Q. A. WARREN, EDITOR AND PROPRIETOR.

VOL. I....FOR THE YEAR 1863.

SAN FRANCISCO:
PUBLISHED BY J. Q. A. WARREN.
1863.

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CALIFORNIA

WINE AND WOOL REGISTER

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SACRAMENTO: JANUARY, 1863. NUMBER 1.

CALIFORNIA

WINE AND WOOL REGISTER

Being a Monthly Compendium of all matters connected with the Culture of WOOL, WINE, and TOBACCO, and other Domestic Interests on the Pacific Coast.

PUBLISHED MONTHLY AT SACRAMENTO.

J. Q. A. WARREN, Publisher and Proprietor.

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SALUTATORY.

THE CALIFORNIA WINE AND WOOL REGISTER is published for the purpose of filling a void which is found throughout the State to be a great inconvenience, namely: the want of a periodical devoted to certain specialities which, whether considered in their solitary or aggregate aspect, stand in prominent relief as matters deeply interesting to the future welfare of the State.

We more especially allude to the growth of Wool, the Vine, Tobacco, and Cotton; the three first must sooner or later, become very prominent sources of wealth, and the last most probably will, so far as supplying the domestic consumption, become a permanent and profitable product.

Those persons who have entered upon the business of growing wool and cultivating the vine, have found, by experience, that the altered position, soil, and climate, to those with which they had been previously accustomed, have necessitated changes of management suited to the altered circumstances of their particular case; and so through the whole category of rural affairs are differences found to exist which necessitate caution and foresight to guard against the effects of changed conditions.

If these remarks are just, as we believe they are when applied to agriculture generally, how much more emphatically do they attach to special subjects, the cultivation of which it is proposed to introduce into a new country by a population in general unaccustomed to their growth; to supply this deficiency, is the object of the CALIFORNIA WINE AND WOOL REGISTER.

To carry out this object, writers practically acquainted with the growth of the special products alluded to, and, at the same time, versed in the scientific theory of the growth of plants and practical management of land, will be engaged for each speciality; and the general management of the paper will be placed under the supervision of a gentleman of wide spread reputation in the United States for his practical and scientific knowledge of general agricultural affairs.

The California Wine and Wool Register will be published uniformly and posted with the California edition of the *American Stock Journal* and of the same size, so that it can be bound with it. As an addendum to the *Stock Journal*, the Wine and Wool Register will be found a valuable acquisition to the California cultivator, as the latter will be principally devoted to subjects almost excluded from the *Stock Journal;* combined, the two will embrace all the chief subjects interesting to agriculturists—comprehending all the specialities of cultivation—information respecting which may be the desideratum of the day. Other branches of agriculture will receive due attention, but it is conceived that the bulk of the California Wool and Wine Register will be filled with *original communications*, relating to sheep and wool; the growth of the vine and its conversion into wine; the growth and curing of tobacco; the growth of cotton and other *textiles;* statistics respecting tallow, hides, etc.; a brief summary of financial matter, together with a resume of all commercial and agricultural interests which permanently affect the interests of the United States Possessions on the Pacific Coast.

The California Wine and Wool Register will be published monthly, a period found in the Eastern States and Europe, sufficiently frequent to afford adequate matter for publication of a novel and useful character; in fact, some of the most distinguished foreign publications of a similar kind, are not published more frequently than once every three months. The publisher and conductors of the Wine and Wool Register are desirous to most emphatically impress upon the cultivators of the soil on the Pacific Coast, that this Journal will consist exclusively of original matter, written specially with the object of illustrating the best and most economical modes of cultivating the soil of this coast, having particular reference to its own peculiarities as regards soil and climate, and the variations occuring therein.

The report of the State Wine Convention occupies so large a portion of the space of the present number, that much original matter relating to other specialities of great interest, is excluded, but which will be carefully seen to in the following numbers. It was thought desirable to give the proceedings of the Convention at length, as many expressed a desire to possess the same in such a manner that it could be perused in one publication, we have, accordingly, acceded to this widely expressed desire; as an example, however, of other subjects not particularly noticed, we have made room for an article on "Gloucester Cheese," which will form an illustration of the manner with which it and kindred subjects will be treated in future numbers. If not crowded out by the length of the Wine Report, we shall also, in this (first) number, insert a few articles on other subjects of allied character.

With these remarks, the proprietor respectfully lays the present sheet on the generosity and kind feeling of all those on the Pacific Coast who may be generally interested in the topics alluded to, and hopes in future numbers, by the aid of their patronage, to not only enlarge the amount of matter, but also add to its literary and scientific claims on their attention.

THE STATE WINE CONVENTION.

The State Wine Convention assembled, December the 9th, at 10 o'clock in the morning, at Minerva Hall, on the corner of Kearny and California streets, San Francisco. Wilson Flint was chosen President and J. S. Hittell, Secretary. Delegates were present from the wine growers of Los Angeles, Anaheim, Santa Clara, San Joaquin County, Sacramento County, Cache Creek Valley, Putah Valley, Napa Valley and Sonoma Valley—representing in all over 3,000,000 vines.

On motion of Col. Haraszthy, gentlemen representing the several districts answered to their names, viz:

From Los Angeles—J. G. Bower, M. Mercado, Mr. Morris, Charles Kohler, (with proxies from 30 other wine growers at Los Angeles.)

From Anaheim—H. Schenck, J. A. Bauer, J. S. Hittell (as proxy from 32 other wine growers at Anaheim.

From Santa Clara—Charles Le Frank, (with proxies from 14 other wine growers in Santa Clara County.)

From San Joaquin County—George West.

From Sonoma Valley—A. Haraszthy, Louis Csermotanyi, Gen. Whalen and Charles Stuart, (who were appointed, with others, at a meeting, to represent the vine-growers of the valley,) and A. Molitor, J. Gundlach and Mr. Lowndes, to represent their own interests.

From Napa Valley—Dr. G. B. Crane.

From Sacramento County—O. C. Wheeler.

From Cache Creek Valley—Wilson Flint.

From Putah Valley—Charles Kohler, a proxy for the Messrs. Wolfskill.

R. F. Perkins, shipper of California wine to New York, and Mr. Grim, Treasurer of the State Agricultural Society, were invited to seats in the Convention.

Mr. Perkins made a few brief but pertinent remarks upon the present condition of our climate and soil for raising the vine, and the advantages deriven. "The gold miners have passed over the earth, obliterating and making waste. But the vineyards have come, changed, and rendered green and beautiful the valleys and hillsides of our native State, making the abandoned soil valuable, and creating an interest which will live for centuries, and it is hoped that our actions

will be rendered historical. He is, he said, not directly interested in grape growing, but in wine making, being one of the house of Perkins, Stern & Co., of New York and Boston, where our wines are well known. The intention has been to have wines without adulteration of any kind. The wines have been well introduced at the East, in our best families, and are used on the tables of the Ministers and men of State at the National Capital."

Mr. Perkins then presented a report on behalf of a Committee appointed by the preliminary meeting, upon the working of the *advalorem* duty on foreign wines. The report was adopted. The following is a copy of it:

Mr. President: At a preliminary meeting of the wine-growers and others interested in the culture of the vine and the production of wine in the State of California, holden in the city and county of San Francisco, on the 18th day of November, 1862, the undersigned were appointed a Committee to report to a State Convention of Wine-Growers, to be holden on the 9th day of December, 1862, "the practical effect upon the wine-growing interest of this country, of the present tariff upon imported wines; the amount of foreign wines imported, and the amount of wines exported from this port; also, the amount and character of adulterated and spurious wines imported into this State."

Your Committee have diligently pursued the inquiries to which their attention was directed so far as time and opportunity would allow, and now beg leave to submit to the Convention the results of their brief inquiries.

The present tariff upon foreign wines imported into the United States is an *ad valorem* duty of fifty per cent upon the value of the wines at the place whence the same are shipped to this country, or upon the home value of the wines. It is a well known fact, and generally understood, that the invoices of foreign wines which are sent to our Custom Houses and upon which this *ad valorem* duty of fifty per cent. is to be imposed, in very many and perhaps a majority of instances, are made up so far as the price or value of the wines is concerned, with special reference to the *ad valorem* duty, and the value affixed to the wines is, therefore, greatly below their *real value*. The government is by this process defrauded out of its legitimate revenue, and the producers of domestic or American wines deprived of that protection which a well regulated tariff is calculated to give them, and which is one of the primary objects of Government in adjusting a system of duties upon imports.

The culture of the vine, and the production of wines in the United States are shortly to become of great importance, and it should be the care of the State Government and the National Government, to foster and encourage this important branch of industry in all proper ways. From the rapidly increasing importance of this interest in California, your Committee think that they may reasonably say that in a few years, provided suitable encouragement is given, and suitable protection afforded, it will take its place at the very head of the list of exports from our golden State.

In order to encourage this important interest in this State, whilst in its infancy and it is struggling for existence, the Legislature should extend to it all the aid and encouragement in its power. In the first place, your Committee believe that it would be wise policy and good economy that all vineyards and products of vineyards in California, should be exempt from all taxation for the period of ten years, at least, and that the same wise policy should be adopted by the State in offering bounties or premiums for the production of wines as that adopted by the Legislature of 1862 in regard to the production of sugar, molasses, flax, hemp, cotton, tobacco, etc. Surely the Legislature cannot be blind to the growing importance of this branch of agriculture.

California has a fresh, virgin soil; a climate as well, if not better adapted to the culture of the vine than France, and her vineyards will no doubt in time produce three or four times as much wine to the acre as the vineyards of France or Germany; that is to say when we shall have discovered the best localities and introduced the choice varieties of grape for the production of wine. All this will require time and money and patient industry.

Our wines, of course, come in direct contact and competition with the wines of France, Germany, Spain, Portugal and other wine-growing countries of Europe. It meets face to face the red and white wines of France; the Hockheimer, the Johannisberger, the Markbrunn and the Stein wines of Germany. With the Malaga, the Sherry and the Vine Tinto of Spain; with the Lisbon, the Port, and other wines of Portugal; with the Brauenberg, the Ratchdorf, the St. Gregory, the Tokay and other wines of Hungary; and the only way in which we can successfully compete with these and other wines at present, is by receiving the fostering care of the State and National Governments.

All the Wine-growing interest of California asks, is to be protected for a short period of time, until this infant enterprise, this soon to be important branch of industry, can gather strength and power sufficient to enable it to walk alone, and fight its own battles against the combined wine-growing countries of the whole civilized world. The wine-growers do not ask, they do not expect, they do not wish the Legislature of this State to do anything for their interests which shall ultimately take any money from her treasury, but on the other hand, they believe that the State, by lending her aid *now* to relieve, to encourage and foster this interest, that in a few brief years her revenues will be largely augmented thereby.

There is no doubt in the minds of your committee, that, within the boundary lines of the State of California, there are twice the number of acres of land adapted to the culture of the vine, and the production of wines, that there are in all the vineyards of France, which now produce about 1,000,000,000 gals. wine annually, valued at about $100,000,000. But suppose that we have only the same number of acres that France has, the quantity of wine produced to the acre, would be, at least three times as great as that produced by the French vineyards, thus giving us a product from the same number of acres, of 3,000,000,000 gallons annually, valued at $250,000,000 at least, upon which the State could levy a tax, in addition to the immense value of the vineyards, which would also be taxable, so that instead of depleting her treasury, or diminishing her revenues by the temporary assistance required, she would be building up an interest which would largely add to her population, and she would be opening an avenue, through which would flow into her treasury a golden stream, adding also to her productions, the great *apostle of health and temperance*.

The Internal Revenue Act, passed by Congress and approved July 1, 1862, imposes a tax or specific duty of five cents per gallon upon all domestic or American wines. This is a very onerous tax upon this branch of American industry, and almost entirely deprives the American wine-grower of any benefit from the duty *ad valorem* upon foreign wines. The foreign wine-grower encounters none of the difficulties which the American, and particularly the Californian wine-grower, is compelled to meet. Here, labor of every grade is high; transportation of every character, whether by land or water, is high; rents of buildings and of land are high; in short, everything—every item which goes to make up the cost of our wines, is at least three times greater than in the wine-growing countries of Europe.

Your committee are of opinion that the present tariff upon foreign wines is entirely inadequate to afford suitable protection to the American wine-grower, and to enable him successfully to compete with the cheap wines of Europe, and would recommend that this Convention shall memorialize Congress so to amend their revenue law as to make the duty upon foreign wines a specific one, of such an amount upon each and every gallon of foreign wine imported into the United States, as shall afford the requisite protection, and at the same time afford reasonable revenue to the Government.

Through the generous assistance of B. W. Mudge, Esq., United States Appraiser, your committee have been enabled to ascertain the quantity and value of foreign wines imported into this State for the first three quarters of 1862, and 810,039 gallons, valued, as per invoices, at $298,200.

There has been but little wine exported from this State, and that, principally, by Messrs. Kohler & Frohling, for the house of Messrs. Perkins, Stern & Co., of New York and Boston. The exports are, however, increasing, and when peace shall again smile upon our country, they will be quite large. The quantity exported from the State in 1862, was about 75,000 gallons.

R. F. Perkins, Chairman.
Chas. Kohler,
L. Tichner.

The Secretary read a report presented by Wilson Flint, as Chairman of a Committee appointed at the preliminary meeting, upon the advisability of forming a State Wine-Growers' Association. The report recommended and urged the formation of such a Society. The report was adopted. The following is a copy of it:

Mr. President: The undersigned Committee, appointed at a previous meeting of wine-growers to report upon a proposition, having for its object the formation of a Wine-Growers' Association, have given the subject what attention

their limited time would admit, and, as the result of their conclusions, beg leave to make the following brief suggestions in favor of the formation of the proposed Association:

It has been proved, by a century of experiment, that California is adapted to vine-growing, because through this long period, there never has been, in part or whole, a failure in the grape crop.

Vine-growing in Europe has been attended with frequent failures during the last sixty years, and its increasing frequency already renders it a precarious branch of industry.

There is in our State an area of land more suited to vine culture than any other branch of agriculture, of sufficient extent to employ in its various departments of labor more than twenty millions of people, and it will be seen that this vast population could find remunerative employment in wine-growing, because there will be found a world-wide market for pure wines.

It has become a matter of general opinion that the wines of commerce, and especially those of Europe, are at best but sophistications of the grape juice, if not wholly chemical compounds, as it is found a matter of impossibility to make wine of the grapes grown in countries subject to cold rain storms during the ripening season, without the addition of adulterating substances. Now, while we find no denial of the charge that foreign wines are adulterations of the grape juice, or wholly ingredients from the chemical laboratory, we may assume that the wines of California will be free from such a stigma, as the pure grape juice can be obtained here cheaper than any of the ingredients which are so largely used, in other countries, for the manufacture of wine.

Those first engaging in the wine producing business in this State have encountered the usual difficulties attending all great enterprises, and these difficulties have been aggravated by the reason that there has been so little association and mutual exchange of opinion among those devoted to this branch of industry. It must be kept in mind that the people of California are, in most part, from non-wine-growing countries; hence, except in theory, they are entirely unacquainted with the subject of grape growing and wine making. Now, the mere matter of planting the vine, its after cultivation and the gathering of the grapes, is simple, and as soon learned as the management of ordinary agricultural crops; but it requires a knowledge of chemistry to ferment and fine wines as well as to be able to distinguish the various ingredients in the soil which give wines their important distinguishing differences. A grape may be exceedingly rich, and make a luscious Port or Sherry; yet when pressed for a Hock or Claret, the wine would be pronounced execrable.

We doubtless have amongst us persons whose experience, gained in the wine countries of Europe, enables them to make from our grapes superior wines. Some of these already have built up a lucrative though limited business. This partial success is the result of superior knowledge. Their success would be complete had they a broad and limitless field. If book education was confined to a few, the favored would possess great advantages over the illiterate, but their opportunities would be confined to a narrow field, as it is only when you elevate the literary tastes of the many, that the superior mental labors of those who excel find remunerative appreciation. This rule holds true when applied to any great progressive movement of society; nor is it more apparent than when adapted to the industrial relations of life.

If the making of wine shall be mainly confined to those ignorant of the scientific principles which involve its proper manipulation, it is natural to expect that in the absence of a correct knowledge, which alone produces satisfactory results, empiricism will step in and apply arbitrary remedies, which, while they save the wines from being at once spoiled, yet in the end vitiate their good qualities, so that if they find consumers, it is to the detriment of the reputation of pure wines. Much California wine, unsuited for shipment by reasons above stated, has been sent abroad, to the great injury of the future of the trade. Few understand how susceptible pure wines are to incidental surroundings. Hence, before our wines can obtain a high character abroad, it is necessary to establish a standard of classification as to age, and the locality of climate, and the soil on which it was grown. In no way can this object be obtained so readily as by the formation of a Wine-Growers' Association, which shall comprise in its membership, it is hoped, every wine-producer in the State.

An Association, having its memberships in every part of the State, would be in a situation to receive and transmit without delay any information concerning the common interest.

It would also by its numbers, and their dispersion throughout the community, be able to exercise sufficient political influence to procure needed laws and prevent injurious legislation.

Its classification and endorsement of the purity of wines intended for shipment, would remedy to a great extent the injury resulting from individuals being unknown, or having doubtful reputations.

Your Committee can barely find space to thus briefly allude to a few reasons, why a Wine-Growers' Association would be of inestimable benefit to the vintners of California, and trust that it may at once be initiated on a basis which shall render our present efforts historical.

An Association might be formed which would go beyond the mere labor of collecting and disseminating information. It might be organized into an incorporation for the purpose of buying grapes and making wine. The wine business in this State must, by necessity, be divided into two distinct branches, one branch being the growing of grapes, and the other the making of wine. The first requires but a limited capital, and is in the reach of individual effort, and may be conducted with ordinary capacity. The last involves an outlay of capital and time, and must have the aid of science and commercial sagacity to render it remunerative.

All of which is respectfully submitted.

WILSON FLINT, Chairman.

A Committee was appointed to draw up a constitution for the Wine-Growers' Association.

The Committee on the law to prevent adulterations of wine, presented a report, which, on motion, was adopted.

The following is a report on the adulteration law:

The Committee which was instructed by the preliminary Wine-Growers' meeting to examine the Adulteration Act adopted at the last session of the Legislature, respectfully report that they consider the law to be a good one in its main features. No law can altogether prevent the adulteration and counterfeiting of wines; but this act has checked these frauds and affixed the stigma and danger of crimes to them, whereas previously they were considered by some as pardonable tricks of trade. Perhaps it would be well to amend the act so as to define adulterations of wine, in such manner that there may be no mistake. It is customary, in making sparkling wine, to add brandy and sugar to the fermented grape juice; and these additions being usual and necessary, should not be treated as adulterations. It is considered permissible also in all wine countries for the wine-grower to add at his discretion a little water to the grapes in the press, or to the wines previous to fermentation; and this is not an adulteration. Neither is it an adulteration to mix old wine with new wine. These customs and others similar in character and reputable among the most honorable wine-growers, should be carefully distinguished from all mixtures of coloring matter, drugs, and diluted alcohol, the use of which is so nearly akin to fraud that no line of separation can be safely drawn.

The Secretary then moved that a committee be appointed by the President to prepare a memorial to Congress, relative to the Tariff on Wines, which was carried. The following gentlemen were appointed as the Committee: M. Whalen, O. C. Wheeler, R. F. Perkins, Messrs. Kohler and Mercado.

On motion, the Convention took a recess till 2 o'clock, P. M.

At 2 o'clock the Convention reassembled, the President in the Chair, and the following memorial, as reported by the Committee, was read by the Secretary, and the report was, on motion, adopted:

MEMORIAL OF THE WINE-GROWERS OF CALIFORNIA, ASSEMBLED IN STATE CONVENTION.

To the Honorable the Senate and House of Representatives of the United States:

Your memorialists respectfully represent that the tax of five cents per gallon levied by the Internal Revenue Act upon all the wine made in the country is unjust, oppressive and impolitic.

It is unjust because it is unequal. With the exception of the tax upon distilled liquors, it is the severest tax levied upon any article of home production. It amounts, in some cases, to thirty per cent. Cider, which is made from apples

by the same process used for making wine from grapes, pays three per cent. The only product (save distilled liquor) that approaches wine in the severity of the burden imposed on it is beer, which is ready for the market in four weeks, whereas wine needs at least a year, and in many cases two or three years to ripen, during which time it loses much by deposition, leakage and evaporation.

The tax is oppressive because it bears so high a proportion to the value of the article. The juice of the grape could be bought in Los Angeles, at the press, in the month of October last, for fifteen cents per gallon. The average value of must throughout the State is about twenty or thirty cents a gallon. At the latter price, the tax amounts to sixteen per cent., five times as much as that levied upon most manufactured articles. The ordinary yield of a vineyard in full bearing is at least six hundred gallons, and the annual tax on it amounts to $30 per acre, more than the total average value of land used in the cultivation of wheat. Besides, the wine interest of California is now in a depressed condition, owing to the facts that the vineyards planted during the wine fever have been cultivated at a great cost hitherto, and have just commenced to bear; that Californian interest, high beyond example, accumulates fearfully against the slow ripening of the wine; that we must import nearly all our bottles and casks; that we must learn, by costly experience, the fitness of different varieties of grape for our soil and climate, and the best modes of managing the vines of a new country. Under these circumstances, this severe and unequal tax is oppressive.

The tax is impolitic because it oppresses and discourages an occupation which should be fostered. The Federal Government has encouraged us to become wine-growers. The Agricultural Reports of the U. S. Patent Office have contained numerous long essays upon the cultivation of the grape and the making of wine. The same office has distributed grape cuttings among us. The Legislature of our State, by the adoption of reports and otherwise, has frequently shown a desire to encourage the wine interest. Public opinion encourages us, and approves the past conduct of the National and State Governments upon this point. Nothing has occurred to change the position of the wine-growers and their occupation in relation to the Government, which has therefore no reason for abandoning its past policy and selecting us to be the objects of extraordinary severity in taxation, as though our business were to be discouraged and thrown into discredit. The tax is not only impolitic because it is inconsistent with the past measures of the Government, but because, if maintained, it will seriously hamper the development of one of the most important resources of California.

For these reasons, we respectfully pray that the tax upon wine may be reduced to the amount levied upon manufactures generally, which sum the wine-growers will cheerfully pay.

We further pray your Honorable Body to make the duty upon the importation of foreign wines a specific sum per gallon, instead of an *ad valorem* tax. The invoices of foreign wines imported are prepared with special reference to the tariff, and the value underestimated in such a manner that the revenue is seriously defrauded, and the domestic wine interest injured. The only secure method of correcting the evil is by the adoption of a specific tax.

The President offered the following Constitution, which was read by the Secretary, and, on motion, adopted:

WINE-GROWERS' ASSOCIATION.

The Committee on a Constitution reported a draft, which was adopted. The following is a copy of the Constitution:

1st. The officers of the California Wine-Growers' Association shall consist of a President, three Vice-Presidents, a Secretary, Treasurer and Chemist.

2d. Any grape or wine producer may become a member on the payment of $3.

3d. Persons not engaged in grape or wine producing may be elected to membership by a majority at a regular meeting.

4th. Conventions shall be held in San Francisco in December and June of each year, the day to be fixed by the President and a majority of the Vice-Presidents.

5th. A Committee of Finance, consisting of three members, and other committees, shall be appointed.

6th. No money shall be drawn from the Treasury without the sanction of a majority of the Finance Committee.

7th. The Convention, by vote, may fix the compensation of the Secretary.

8th. The objects of the Society shall be to encourage grape and wine producing in the State, and to discourage and expose all attempts at the adulteration of Californian wines or brandies.

9th. The Secretary shall from time to time transmit to the members all information deemed of importance to their interest.

10th. Any member may be expelled, by a majority vote, on satisfactory proof that he is engaged in the adulteration of Californian wines or brandies.

11th. The officers shall be elected unanimously at the December Convention.

12th. Each member shall pay a yearly fee of $3, unless otherwise ordered by a two-thirds vote of a regular convention.

13th. The Constitution may be amended by a two-thirds vote after notice shall have been given at a previous regular meeting.

The Committee appointed to report upon the vineyards of the State, reported as follows:

	No. of Vines.
Los Angeles	1,200,000
Sonoma	1,200,000
Anaheim	450,000
San Gabriel	150,000
Cu Co Mungo	160,000
Napa Valley	300,000
Santa Clara County	800,000
Green Valley, (Solano County)	150,000
Putah Valley	150,000
Cache Creek Valley	800,000

It was expressed by some of the members that the number of vines planted in this State will amount to 20,000,000.

It was moved that a Chemist be added to the officers of the Society, which was carried, and Mr. J. A. Bauer was unanimously elected Chemist of the Wine-Growers' Association.

Mr. Bauer submitted to the Association some papers on the chemical composition of wines, modes of detecting adulteration, etc., which were read by the Secretary. Regarding adulterations of color, Mr. Bauer says:

In all pure wines not white, the coloring matter is derived from the skin of the grape. Foreign coloring matter is very frequently used, and may be detected by chemical tests.

The first test to determine whether the coloring matter be genuine is thus given by Chevallier: If there be no precipitate from red wine in which all the acid has been neutralized by caustic potash, the color is genuine; if there be a precipitate the color is an adulteration. Only so much caustic potash as is necessary to neutralize the acid must be used in this experiment. The genuine grape color is changed by the potash first to greenish and then to brownish green. Caustic potash may be had of every apotheeary, and so also litmus paper. Blue litmus paper turns red when dipped in the pure wine which is acidulous; and red litmus paper turns blue when dipped in an alkaline solution. When, therefore, the acid of the wine and the caustic potash have neutralized each other both kinds of litmus paper remain unchanged in color.

If the coloring matter be obtained from a foreign substance, the nature of that substance may be ascertained by the color of the liquid or the color of the precipitate after dissolving alumina, carbonate of ammonia, caustic potash, or alum in the wine.

If sugar of lead be used, a dark blue color of the liquid is a mark of logwood, wine color of Brazil wood, dirty gray of poppy flowers, dirty green of elder berries or comel cherry, and bluish green of lacmus.

If alumina or carbonate of ammonia be mixed with the wine, a dark violet color is a sign of logwood, carmine of Brazil wood, slate-color of poppy flowers, bluish gray of elder berries, and light green of comel cherry or lacmus.

If caustic potash be used, a reddish violet color in the precipitate is a sign of logwood, red of Brazil wood, yellowish red of red beets, light violet of lacmus, green of elder berries or myrtle berries.

If alum be used, a dark brown color in the precipitate is a sign of logwood, reddish violet of Brazil wood, bluish red of red beets or lacmus, light olive green of elder berries, and dark olive green of myrtle berries.

ADULTERATIONS OF THE BODY OF THE WINE.

Mr. Bauer submitted the following remarks upon the modes of detecting adulterations of the body of wine:

Adulterations with water can be detected only by the taste.

Adulteration with cider or berry may be detected by driving off all the volatile matters by heat, and throwing the solid matter left upon burning coals. The odor of the apples or pears can be plainly perceived in the smoke.

Adulteration with alcohol may be detected by taste for a short time after mixing, and by no other means.

If chalk, soda, marble dust or gypsum has been used to neutralize the tartaric acid of the wine, the sediment will show a tartrate. If any of those substances have been used to neutralize acetic acid, the acetates will be found in solution in the wine.

If alum has been used to deepen the color of wine or prepare it for transportation, chlorate of baryta will throw a precipitate insoluble in muriatic or nitric acid.

If tannic acid has been put into wine, it will form a precipitate with gelatine.

If sulphuric acid has been added to wine, it will form a white precipitate with the chlorate of baryta.

RULES FOR TASTING WINES.

Do not eat or drink anything sweet or sour, or smoke before tasting.

Always eat some dry bread before drinking a new kind of wine.

Wine is weakest at the top of the barrel; hard and stringent at the bottom, and best in the middle.

Wine should not be either hot or cold when tasted.

Do not taste wine during a thunderstorm, nor in March or April, when the vines are sprouting.

Throw the wine into the glass so that it may form bubbles, and then put it to the nose while the bubbles are bursting.

Good wine is always lighter than water.

Col. Haraszthy moved that a committee of three be appointed by the Chair to make arrangements to import oak staves for wine barrels from the East—carried, and Col. Haraszthy, C. Kohler and Dr. Crane were appointed as the committee.

On motion, the Convention proceeded to an election of officers for the ensuing year.

ELECTION OF OFFICERS.

Wilson Flint was elected President; Hugo Schenck of Anaheim, George West of Stockton, and Louis Csermotanyi of Sonoma, Vice-Presidents; J. S. Hittell, Secretary; C. Kohler, Treasurer; J. A. Bauer, Chemist, and C. Stuart, R. F. Perkins and J. Gundlach, Finance Committee.

A Committee, composed of A. Haraszthy, J. Gundlach, and O. C. Wheeler, was appointed to prepare an address to the wine-growers of the Atlantic States, requesting their co-operation.

On motion, the Convention then adjourned *sine die*.

How to Make Cheese in Imitation of Double Gloucester.

There are three kinds of mild cheese made in England which are not equalled by any other species in the world. The first is Stilton, only made small in size and not in great quantities, principally in the vicinity of Stilton on the borders of Leicestershire, Northamptonshire, and Lincolnshire, respecting which, at a future day, we may have to say something more. The others are the North Wiltshire and Gloucestershire; we have not added the celebrated Chedder to the list, because, with the exception that in the last named instance, no coloring is employed, the process of manufacture is otherwise alike and the products similar in quality.

The milk, immediately after being drawn from the cows, must be put through a strainer into a tub sufficiently large to hold the quantity of milk required for the cheese intended to be made. After this, it is customary to put into the milk the coloring matter, "Annatto;" as, however, this coloring is a dirty and useless practice, we shall not dwell upon it further than by stating that of cheese made at the same dairy, the one colored and the other not colored, (artificially) whenever a difference was observable, it was in favor of the non-colored. Pour into the milk a sufficient quantity of rennet to coagulate or curdle it, but not more; allow it to stand until the curd is quite formed, when it may be cut or broken with a knife, and the whey removed with a skimming dish. The curd should be made firmer by degrees, by pressing it gently with the hands to one side of the tub, removing the whey as rapidly as it exudes from the curd. The curd should now be cut into peices of about an inch square, and put into a cloth, then place in a large wooden drainer, which should have a cover of a size to go within the drainer. A weight of about half a hundred weight should then be laid on the top of the cover, which will moderately press the curd. After remaining fifteen or twenty minutes, the curd must be taken out and cut again, but this time into smaller pieces, to be again put into the drainer and pressed as before; this must be again taken out and the process repeated. It is then to be finally taken out of the drainer and put into a tub or vessel and cut small like mince-meat, with a knife made for the purpose having three blades, which facilitates the operation. This completed, the curd must be well mixed with the requisite quantity of salt and then put into the cloth, and afterwards into the chessart which after being put under the press, must, subsequently, be taken from under it and out of the chessart, from time to time, removing the wet and applying dry cloths, on each occasion, until by repeated pressings the cloths come off quite dry, which is the rule for knowing when the cheese is pressed enough. It is an advantage to possess as many presses as will allow the cheese to remain two days or upwards, in the press. If the last cloth is of a fine texture and dipped in warm water and wrung out before putting it on the cheese, it will give such so treated a finer skin.

It ought to have been stated, that after the curd has been put into the chessart, it ought to remain there twelve or fifteen hours, with about half a hundred weight on it previously to being put under the press.

After being removed from the press, the cheese should be laid on a dry floor or shelf. They ought, in the first instance to be turned daily, and rubbed with a dry cloth; after the skin has become firm, it will be sufficient to turn and wipe the cheese twice a week.

One hundred and twenty quarts of milk* make thirty pounds of cheese; on an average, we should say, judging from the quality of California milk, that a much larger weight of cheese of the richest quality, ought to be obtained from the same quantity of milk.

We have long thought that California could make the richest and finest flavored cheese in the world; the greatest drawback to its keeping qualities, we have always considered, would be found in its over rich quality. From this circumstance, and the rather negligent way in which the whey is pressed from the curd, previous to being put under the press, in California practice, makes us fear that cheese so made will not keep sufficiently for exportation. This fact cannot be too carefully impressed upon the cheese-maker, that a quantity of whey remaining in the curd that may prove of no evil consequence in a cold country, may, in a warm region, cause serious injury; this is self-evident, and, therefore, should be avoided.

* Equal to 140 quarts California measure.

On the other hand, a disinclination to labor naturally exists in warm climates, which fully accounts for the damp character of California-made cheeses, owing to the deficient manual application used in pressing out the whey from the curd during the preliminary stages of cutting and draining. In order to overcome this difficulty, apparent even in a comparatively cold country—Scotland—what was termed a pneumatic press was invented for the object of drawing out the whey with greater facility. In an early number we will endeavor to give instructions for making other celebrated varieties of cheese.

Alpacas for California.

It is one of the pleasing features incident to the general character of those who have once resided in our favored State, that whatever may be the occupation, or however distant the calls of duty may demand their attendance, that no opportunity is allowed to pass idly by whenever such can be made advantageous to the country of their adoption.

Our attention was called, almost on the point of going to press, by Captain Frisbie to a most gratifying instance of this character in the person of Captain Bissel of the U. S. war vessel *Cyane*, whose letter to Captain Frisbie we now submit to our readers:

"U. S. Ship "Cyane,"
Panama, N. G.

"DEAR SIR:—My knowledge of your agricultural taste, and the deep interest you take in all that contributes to develop the resources of California and improve the breed of horses, cattle, and sheep; shrinking from no labor and sparing no expense towards the attainment of ends so useful to the State and honorable to yourself; combined with my high esteem and friendship for you, founded upon two years of most kindly and genial relation, induce me to write to you upon a subject which I think will greatly interest you.

"The following extract from a letter I addressed to the Hon. Secretary of the Navy, will give you an idea of the object I have in view.

"The animals I speak of, have now been on board the *Cyane* nearly two months, and notwithstanding their close confinement, are thriving and healthy. The female Llama died before she reached the ship, in consequeuce of being overdriven, but her place will be supplied by one on its way which did not reach me in time. I send with this, specimens of Alpaca wool given me by a friend in Callao.

"I find that I was misinformed as to the price of this wool in England; it is worth from $1 to $1 25; the Vicuna wool about $2 50. The inclosed specimens of the latter wool, is from the one I have with me. I send a statement from the proceedings of the World's Fair, this year, in London. I have seen Ledger's Report, made in 1841, in which he says, that a fleece from the improved Alpaca in Australia, of twenty-two month's growth, weighed twenty-six pounds. I am confident that the Vicuna, crossed with the Saxon sheep, will produce an unrivalled wool.

"Should I be so fortunate as to get these animals to Mare Island, in good health, I shall have much more to say to you upon this subject. Show these specimens of wool to some of your agricultural friends. The luster becomes much more brilliant, so say the English authorities, by dying.

"I send you an extract from an account of the great London Exhibition of 1861, which speaks of the value of this wool, and the success attending the breeding of the Llama, Alpaca, and Vicuna, in Australia. A more recent report from Mr. Ledger states, that an Alpaca fleece of 18 month's growth' weighed 26 pounds; that the quality of the wool, and size, and hardy character of these animals had much improved by breeding in the Colony. I send you, also, a copy of the *Philadelphia Inquirer* which contains some editorial remarks and my report to the Navy Department; the latter will give you my views upon the subject.

Truly, your friend,
S. B. BISSELL.

Captain Frisbie, Vallejo, Cal."

The London correspondent of the *Panama Star and Herald*, writing on the late International Exhibition states that among other contributions exhibited from Spanish South America that Mr. Kendall, Esq., Consul for Peru, contributed along with minerals, articles of food, etc., from that republic, a variety of specimens of Alpaca, Vicuna, and Llama wools shown by this gentlemen, were the best things in the collection; but the only sample of manufacture from this source of national wealth, is a small piece of Vicuna wool felt, exhibited by Don Pedro Galvez. It is worth noting in passing, the difference, in this respect, shown by the New South Wales exhibitors, in whose colony, as your readers are well aware, Mr. Ledger succeeded a few years ago, under circumstances of extraordinary difficulty, in introducing a number of Llamas and Alpacas, from Bolivia. Here is shown a case containing seven of these animals, born in the colony, with samples of their wool, and also cloth, shawls, etc., made therefrom. It is stated that the fleeces of the Llamas, just shorn, averaged 8¾ pounds each, and it is calculated that by the end of the present century, the clip will exceed 50,000,000 pounds in weight, and be a source of riches to the colony not inferior to the gold mines of Victoria. The colonists also, by crossing the breeds, have produced a more hardy animal, with a finer and more glossy fleece. It may be mentioned here, that in the machinery department, Mr. Titus Salt exhibits machines designed expressly for spinning and weaving this fibre.

We are unable to enter at any length and dwell upon the important subject in the current number; in our next, however, we shall not fail to dwell upon it more fully. Its importance may be gathered from the fact, that thirty years has scarcely elapsed since the first bale of Alpaca wool was exported from Peru by way of experiment. Mr. Titus Salt, the gentleman alluded to above, was then, but in a very small way, a Yorkshire manufacturer; he is now a millionaire, possessed of one of the largest manufacturing establishment in the world, specially constructed for the manufacture of Alpaca wool, surrounding which are the residences, gardens, pleasure grounds, etc., of the work people, all laid out in the most judicious, ornamental, and economic manner, combined with all the improvements and precautions pointed out by sanitary science.

We have ever been, from our first residence in the State, earnest advocates for the domestication of these valuable animals; the recent silver discoveries situated in the inclement winter climates of the elevated portions of the Sierra Nevada, form additional inducements towards energetically setting about their speedy introduction. The Llama is the camel of Peru, its hard hoof resisting the injurious effects arising from tramping over the stony and rocky roads such as are found on the Andes and the Sierra Nevada, on such the soft pad-like foot of the camel gives way and is speedily disabled. In crossing sandy deserts, the Llama would be at a disadvantage, its pointed hoof too easily penetrating the sand, whilst on the other hand, the broad pad of the camel's foot is calculated to prevent its sinking. Next number we shall have more to say on the subject. In the meantime, the publisher will be happy to show the specimens to those who feel sufficiently interested in the subject to call upon him, the box of specimens forwarded by Commander Bissell to Captain Frisbie, having been intrusted to his charge for that purpose.

[A Communication.]

California, as it is, and as it might become.

It is not enough that man should be endowed with the germs of virtue, intelligence, and wealth; his destiny can only be fulfilled when these germs have been fully developed and exercised. What is true of man is also true of the earth we people, the State we inhabit. The germ is valueless to man and country, except when developed and in use. What signifies the adaptation of seasons in California to the most varied, the most beautiful and enriching operations of agriculture that the world ever recognized? The adaptation without the appreciation is of no benefit. Our incomparable sky, our rich vallies, our mining ranges, our protected coast, and the measureless ocean, wooing a commerce through Golden Gates—these, if undeveloped, are as useless as diamonds that are confounded with common pebbles.

There is nothing which is essential to the consolidation and independence of a great State, with which California has not been supplied. In mining, industry is welcomed by a metallic profusion and variety unequalled. In agriculture, there is positively no want unsupplied. We can become a vast grain field, an uninterrupted orchard, a colony of gardens, an endless vineyard, a gigantic cotton state, a tobacco province, or the wool market of the universe.

This is extravagant we admit, but nothing is so extravagent as the truth, which enumerates the boons of Providence to California.

We intend to invoke attention to a few of the grand resources of the country which has accumulated so long a record of unappreciated wealth. We believe that in her wool or wine, her cotton or tobacco, the State may acquire a distinction and resource worthy of any outlay of capital or application of labor. There is no reason why we should go abroad for any of the fabrics of wool or cotton, or any of the products of the vine and the tobacco plant. We shall present, from time to time, such reports from the experiments already made in wool growing, as will convince even close calculating capitalists, that they can benefit themselves and the State by giving liberal encouragement to this source of wealth. And in respect to wine, enough has been already done to show that in this product we have a mine of riches surpassing our lodes of gold or ledges of silver. A lead of priceless worth, because its out-croppings have established the exhaustlessness of its claims, and made of this field of labor a certainty.

Cotton and tobacco, while less extensively demonstrated by experiment, have, nevertheless, yielded signs of munificence and luxuriance in growth and quality, which justify the greatest expectations from them as leading productions. We trust we shall be able, within the next two years, to add them to California's long catalogue of riches and reliance. All the information we can obtain upon these subjects, which when published will promote development, we shall collect with unwearied diligence. We hope and feel that in an effort of this kind, we will receive favors and assistance which will make our scheme entirely successful.

Experience in Tobacco Culture in California.

Messrs. J. Street and A. O. Peden of Alamo, give the following as their experience in sowing the seed:

"Select a piece of light, loamy soil, burn it well, rake off the ashes, and then dig up three inches deep. It should be pulverized fine, and all trash raked off. When ready to sow, mix the seed with dry ashes—mix it well—one heaped table spoonfull of seed to a milkpan of ashes. Sow that quantity on a bed one rod square, and trample the bed after sowing. That is all that is required to be done. Sow about the first of January. If the plants do not grow fast, and the ground becomes dry, water should be sprinkled on the plant bed every evening."

Want of space compels us to defer to another number the future details of tobacco planting and management. No evil will, however, result from the delay, because in our next publication we shall be enabled to give all the details of management up to planting out, which will not be required until the month of April.

Messrs. Street and Peden state that they have some seed for sale, and their rule is, first come first served.

They have six varieties: Virginia Gold Leaf, Cuba Brittle Stem, Havana Broad Leaf, Havana Short Leaf, Maryland Straight, and Ladies' Finger—all cigar tobacco, except the Virginia and Maryland.

Cultivation of Cuba Tobacco--No. 1.

The two chief points to be considered in this as with most other plants, is the suitableness of climate and soil. The interior sheltered valleys of California, south of Marysville, when protected from the diurnal summer ocean winds, will probably be sufficiently warm.—With regard to soil, what in temperate climes would be termed a good turnip soil, will be found most suitable to the Cuba variety of tobacco; that is, a rich, sandy loam, not too low to be moist, nor too high, to become too dry in the summer season; protection from cold winds is essential.

For a seed bed, in preference should be selected a rich piece of mellow land, all the better for being previously cultivated, if kept free from weeds; such is preferable to newly broken grass land, as grass is apt to spring up in the seed bed among the young plants when made from the latter. Perhaps no place for a seed bed could be selected better than a piece of land previously occupied by carrots, if the bed had been kept clear from weeds and the soil left moderately rich. Grass springing up among the plants materially injure them and cannot well be withdrawn without more or less interfering with the future growth of the plants, for in common with all the *Solanaceæ*, the tobacco plant is very susceptible of injury, owing to its roots being disturbed, especially in its infantile stages; the most popular illustration of this fact will perhaps be to recall the attention of the farmer to what occurs when potatoes are disturbed at the early stage of their growth—application of this simile will be the better apprehended, when we explain that the tabacco and potato belong to the same tribe of plants, the *Solanaceæ*, and possess many attirbutes in common, which will be alluded to hereafter or in a leading article on the subject. We ought not to omit to state that, whether as regards the plant or nursery bed or the plantation, the soil selected should be capable of retaining or be placed in such a situation as continuously to maintain a moist but not a wet condition.

In preparing the ground for the nursery, it should be broken up deep and fine; all roots and weeds should be carefully raked up together and when sufficiently dry burned, raking on and up to the burning heap as much soil as the dry carbonaceous matter will burn or scorch; after this is burned out, the ashes should be carefully spread over the whole bed and dug or forked in, along with as many more ashes as are conveniently attainable, for no cultivated crop yields so large a return of profit for an expenditure of ashes as does the tobacco plant. This being done, mark out the beds the most convenient length for the situation, and of about 3 to 3½ feet width, with an interval of a foot between each bed to pass up and down for the purpose of weeding; the above widths allowing the arm to reach to the centers of the beds without inconvenience; these passages should be carefuly lined out and tramped into form before sowing the seed.

The first of January is perhaps as early a period as the seed ought to be sown in the southern parts of Upper California, and the latter end of the month, or about that time, this should be done in the latitude of S. F.; earlier would occasionally expose the seed or plants to over severe weather, and later would probably retard the time of maturing until the early rains set in. The seed bed being prepared, mix every ounce of seed with about a quart of dry ashes, to assist in separating the seed, then sow broadcast and carefully rake the seed into the soil; this being done, trample the seed in or run over the bed a light roller, and if not already pretty damp, a little water must be strickled over it; and must be so kept moistened until the plants have grown to a size sufficient for their removal.

Improved Butter Worker.—Our attention has been called to an improved butter worker, made by Mr. Oliver Allen, (a dairyman,) which can be seen at Messrs. Elder & Son's. We can only, in consequence of the crowded state of our columns, in this number, observe that it is calculated to obviate an evil well known to dairy people, namely: that of pressing out all the butter-milk without causing the butter to become what is known as over-worked. In the next number we shall give a more detailed description of its merits.

The Mammoth Tree Grove.—We regret that insufficient space compels us to defer an extended notice of the handsome portfolio containing the views of this interesting locality, which has been published by Mr. Edward Vischer, and just issued from the press of Messrs. Nagel, Fishbourn and Kuchel. A more extended account will appear in our next, as also of "Vischer's Sketches of Washoe" and "Vischer' Views of California."

CALIFORNIA
WINE AND WOOL REGISTER.

"Festina Lente,"---Hasten Slowly.

SACRAMENTO, JANUARY 1863.

AGENTS:

J. F. CRAWFORD ..... Sacramento
G. H. BELL..... San Francisco
—. RANDALL. ..... Marysville
—. LE BOURS ..... Stockton
W. G. STILL..... Los Angeles

The WINE AND WOOL REGISTER can be found at the above places until our full List of Agents is made out.

NOTICE.—The Publisher of the WINE AND WOOL REGISTER respectfully requests that it may be distinctly understood by the subscribers, readers and the public generally, that he has NO CONNECTION with any other JOURNAL published in California.

FESTINA LENTE—HASTEN SLOWLY.

WE have adopted the above paradoxical motto as we believe it to be peculiarly applicable to the present condition of things in California. The "go-ahead" system has been weighed in the scales of experience and is found wanting. Hasten slowly, and we shall make every progressive step a permanent foothold and a fulcrum for future advancement.

If we take a retrospective glance and reflect on the exaggerated expectations which filled the minds of many only a few years ago, of the rapid and splendid fortunes which were soon to be obtained from not only the vine and the fleece, but from such "small deer" even as the peach. The mind can scarcely become other than pensive in reviewing past errors consequent on hasty generalizations. Forgetful of the rapid manner in which sheep would multiply in the then—and almost still, to practical purposes—boundless pastures of California, many unthinking persons entered upon sheep farming upon calculations based on the certainty that the carcasses of the common Mexican variety of sheep would continue for years to realize five dollars per head from the butcher, whilst the lambs and wool would more than pay all the cost and charges attendant upon food, management, etc. The consequence was that, under this impression, scarcely any sheep-owners could be found to part with sheep, so that our markets were inadequately supplied, at high prices, with mutton of moderate quality. Eventually, and that pretty speedily, it became evident that the increase of stock approached, and would soon pass beyond, the means of subsistence. Then the unfortunate flockmaster found that with a three times more numerous flock accumulated, after some years' anxiety and care, its market value was less than the original purchase money, unless he had been one of those possessed of a wise forecast that early foresaw the advantage of improving the quality of his animals, especially with respect to the fleece. Those who have done so, we believe, have generally had no occasion to regret their investment in this species of industry. Those, however, who have not made any attempt at improving the original Spanish or Mexican stock, have, during the past three years, found the outlay of management absorb the entire returns, a state of things which we do not see how such parties are to get relieved from, excepting by the slow but certain results obtainable only by imparting new blood into his stock by means of fine wooled bucks. It is gratifying to witness that not a few have already infused into their flocks fresh blood, as exhibited in the descendants, both in superiority of form and grade of wool. We are not amongst those who would unqualifiedly recommend the rearing of sheep possessed of fleeces of a very high priced quality, we do not concieve that the present condition of California is advantageous to such a course; good, sound wool on a moderate carcass, clipping five or six pounds per fleece of *clean* wool, is the sort that is most desirable, and notwithstanding all isolated instances to the contrary, we are a long way yet from this standard; moderate efforts would, however, easily attain it.

Again, with the vine, how many invested in the construction of vineyards who had never studied the business in which they were about to engage, who thought that if the vine only leaved luxuriantly and matured heavy branches of grapes, that the business was done. To the regret of many, it has been found that such was only the first and least difficult step. Few enterprises exist requiring so large a proportional capital as that of the wine-grower. In the first place he will generally have to allow five years to pass away before he can anticipate

any reasonable return of fruit, and in an ordinary way he cannot expect it to be converted into a wine of such a merchantable condition as to realize a fair price under two years addition, or seven years from the commencement of his labors. There has to be added to all the charges incidental to the culture of the vineyard, interest of capital, etc., a stock of fermenting casks, and above all, the construction of a cellar, cave, or some underground apartment that can be managed to be kept at an equable temperature during the entire year, but especially guarded against the extreme heats of summer.

We can scarcely, therefore, feel astonished that great disappointment has attended the efforts of many who over-zealously entered into an occupation in which they had no experience. Nor were these the only drawbacks; in many instances, weight of crop was sought rather than quality of fruit, for the production of wine; with this object, irrigation, planting the vines on rich soils, and other practices of a similar detrimental character, so far as the future production of a fine flavored wine was concerned, were occasionally adopted, and we need scarcely add, with the most unsatisfactory results. It is not easy to retrace the steps after a vineyard is once planted, yet a judicious cultivation and careful future management may greatly palliate the consequences of the initial evil, but can never entirely overcome it.

It will be our endeavor, from time to time, to point out the best mode of proceeding with vineyards already established, but more especially, to dwell upon the extended adoption of new varieties calculated to produce wines of the highest class and greatest value. Let it be borne in remembrance, that some wines at two years old are worth $200 per fifty gallons or four dollars per gallon, while others, as the *Beni Carlo* or wine made from the so-called Mission grape, can be had, in abundance, at ten cents per gallon, the difference being as forty to one; one-eighth the quantity of the former, per acre, would, therefore, be much more profitable to the vine-grower than the latter. In this, as in other objects of cultivation, a greater profit can oftentimes be made from a lesser crop than a larger one.

It would be a great mistake to infer from any of the preceding remarks that we are desirous of damping the ardor of the wool or wine grower; all that we wish to inculcate, is the desirableness of each one carefully weighing all the advantages or disadvantages of his position as regards capital, soil, climate, etc., after which, if the conclusion is favorable, then go ahead.

The Tax is Unjust because it is Unequal.

We have not space in this first number to comment upon the many topics touched upon by the Wine Growers' Convention; the one, however, which forms the caption to this article, so fully meets with our concurrence, that we have made sufficient space to insert a few comments.

A tax of five cents per gallon upon an article that at the press may not probably reach a value of more than fifteen or twenty cents, may be truly said to be a crushing one, if viewed in that aspect alone, when, however, it is further borne in mind, that the duty of twenty or thirty-five per cent. as the case may be, will be levied on an article that ought not, to do it justice, be brought into the market under two years, during which period it is liable to incidental losses consequent on evaporation, leakage, etc., this tax may truly be pronounced a great discouragement to vine culture.

The proportionate rate of tax may be inferred from the following statement of the rates at which some of the chief low priced wines are usually invoiced from Europe in ordinary seasons, and which are liable on importation into the United States, to a duty of fifty per cent. The chief wine, so far as bulk is concerned, that is imported into California, is a common species of claret, ordinarily invoiced at Bordeaux at $25 per hogshead, of fifty gallons, or fifty cents per gallon. The Beni Carlo wine has been noticed in another part of our publication. Malaga sherries, both sweet and dry, can be shipped at $20 to $30 per pipe of 126 gallons, or say from 20 to 25 cents per gallon; on which the duty of fifty per cent. would amount to 12½ and 15 cents; but in the case of Beni Carlo it would only amount to five cents per gallon, and on the bulk of French wines, imported in casks, to 25 cents per gallon.

What are Native California Grapes?

We have selected the above caption in deference to the general adoption of a commonly used term, but misnomer, viz: that of calling the grape introduced by the missionary fathers as the California grape, or more frequently the native grape, and deducing from such misnomer very erroneous trains of reasoning and conclusions.

Thus, in a controversy between Mr. Detten and a contemporary, it is stated that the mission grape grows better without irrigation than any European grape. Had Mr. Detten stated "than any *other* European variety, he might have been correct, for we cannot admit that less than one hundred years acclimation since its introduction into California, can have so changed its general characteristics as to entitle it to be called native," particularly when it is taken into consideration that we do not discover one tittle of evidence to show that it is in the slightest manner changed from its original, as now found growing in Catalonia. The general attributes of this species of vine from the planting to the gathering of the fruit thereon, when similarly treated, produces a wine like that made from the same grape in Catalonia.

What is called the Mission or California grape, which was first introduced into California by the Fathers of the various Missions, is the species which produces the wine commercially know as *Beni Carlo*, a corruption of *Bene Carlo*, or Good Charles, the name applied in Spain to this species of grape. It is celebrated in Spain for its great productiveness, hardiness and saccharine qualities. So much does the latter quality abound that we are not aware of having ever seen a single pipe of wine made from this grape that did not taste either too sweet for a good wine, or when kept too long after leaving the place of its growth, that this sweetness did not degenerate into acidity. It is a great favorite in the northern provinces of Spain, especially in Catalonia and Arragon, where the yield in some of seasons this grape is so abundant that a person taking two casks to any neighboring wine press can have one cask filled on leaving the other empty cask as payment. The port of Tarragona is the great place for shipping this species of wine, and we have often known it to be put free on board a vessel lying at that city at so low a rate as twelve dollars and a half per pipe of one hundred and twenty-six gallons, payable in six months.

This very low price is no doubt one cause of the inferior quality of the wine produced from the *Bene Carlo* grape. Due precautions are not taken to retard the first and rapid fermentation, whilst the second, slow or insensible fermentation, which, under proper management, ought to be the means of converting the remaining unchanged sugar in the must into alcohol, is frequently stopped by pouring into the newly racked wine a considerable proportion of brandy, and thus at once fitting it for exportation. From what we have observed of the red wine made in this State from the same grape, we are inclined to believe that the chief drawbacks in the quality of the wine are more observable in that made in California than that made in Spain, the body does not continue so long, it throws down by keeping a more copious sediment, and loses its color more rapidly than similar wine of Spanish production. We are strongly inclined to suspect that these evils are in California much agravated by the want of suitable cool wine cellars, in which to carry out the entire fermentation to its ultimate point, and that in such a manner as to cause the smallest possible formation of acetic acid.

Notwithstanding all the drawbacks enumerated, we have seen *Beni Carlo* wine, after being kept three years in wood and two years in bottle, compare favorably with second quality wine from the Alto Douro. The *Bene Carlo* grape is calculated to make a wine assimilating in general character more to that of port than any other wine. It is not at all calculated to make claret, and of French wines a difference of manipulation would, if it made any change at all in the quality, would most probably resemble in its results some of the strong-bodied intoxicating Burgundies, rather than any other variety.

From the preceding remarks it will be seen that to found any argument on the hardiness or non-liability to disease of the so termed Mission grape, on the ground of its not being an European variety, is a complete fallacy.

In the course of the controversy alluded to, it has been stated in the Stockton *Independent*, respecting the Isabella grape, "We are at a loss to know what European grape we have in the vineyards of California that is more hardy than a grape (the Isabella) which flourishes outdoors in the New England States when the frosts of winter are many degrees below zero."

Respecting the remark just quoted, we wish to observe, and the observation we wish our readers to carefully impress upon their memories, that of all the usual plants cultivated by man, there is perhaps scarcely one that can withstand, without injury, so great a degree of cold as the vine. The isothermal line of five degrees centigrade passes from near Sitka, on the Pacific coast, through Eastport in Maine,

thence it ascends northerly to above the Ferroe Isles, from which, after losing the influence of the Gulf stream, it rapidly descends to Moscow and Kasan, at which latter place the vine flourishes, though its winter temperature descends many degrees below that of Maine; but on the other hand, the summer temperature is much higher. No vines ever suffered in England from "winter's cold," but they fail in that country to ripen in the open air, owing to a deficiency of summer heat. The Black Hamburg is a variety that, perhaps beyond all others, will attain maturity at the lowest degree of summer temperature, yet in the vicinity of London this variety rarely ripens sufficiently in the open air to even form passable table-fruit; yet, that city's markets are supplied in profusion from the German coast with grapes of this variety, and of good quality, although grown beyond the parallel of London, from plants subjected to much more intense winter colds, but possessing the essential advantage of having for a month or six weeks the requisite higher degree of summer temperature required for their maturity.

THE WOOL MARKET.

According to the latest advices received from Europe, which have been kindly forwarded to us by Messrs. John L. Bowes & Bro., wool brokers, Liverpool, which reach to Nov. last, it would appear, that at a large sale, just ended, of 42,586 bales of live wool, 21,562 bales of East India were offered and 21,120 bales sold; there was a steady competition, and prices opened at an advance of half a cent to two cents per pound, for common kinds, on the previous July sales.

At Antwerp, during October, 5,590 bales of Meztizo were offered at auction, and 5,742, sold. Competition was excited and the prices obtained were 20 per cent. higher than the depressed sale held there in June. An active demand still exists in Europe, particularly for well-conditioned parcels of fine wool, the coarse kinds being less wanted. This last named fact, doubtless arises from the circumstance that the high price and scarcity of cotton renders woolen and mixed fabrics, such as the old fashioned linsey-woolsey of more economic wear than clothing made from the great southern textile, which it was imagined was to rule the world. Old manufacturers well know that, for strength and endurance, no wearing fabric of a mixed character, can compare with those composed of wool and silk and wool and flax. The immense improvements made within the last quarter of a century, in the manufacture of mixed fabrics, render it probable that the dearth of cotton will force upon the manufacturer's attention the construction of wearing apparel composed of other cloth than calico, for ordinary female wear. Should, as is highly probable, this prove to be the case, we know of no materials to which such extensive resort can be had as to wool and flax, either alone or mixed. Under any circumstances, wool and flax intermixed make a much handsomer, more durable, and, consequently, more economical fabric than mixed wool and cotton, and has the additional advantage of taking a more permanent dye and brilliancolor, a subject well deserving our lady readers' attention.

The following statistics of our domestic wool growth and markets, are extracted from Messrs. Christy & Wise's Circular for January 1st, 1863:

RECEIPTS OF WOOL TO FIRST OF SEPTEMBER.

California	4,361,016 lbs.	
Oregon, estimated	117,400	
Vancouver Island, estimated	8,000	
Sandwich " "	2,000	
Japan	600	
		4,489,016 lbs.

RECEIPTS OF WOOL SINCE SEPTEMBER FIRST.

California	2,078,982 lbs.	
Oregon, 392 Bales, estimated	68,600	
Washington Ter'y, 10 bales, estimated	1,750	
Sandwich Islands, 56 bales	10,327	
Vancouver Island, 48 bales	8,781	
Amoor River, 31 bales	12,115	
		2,180,555 lbs.
Total Receipts		6,669,571 lbs.
Total Shipments Gone Forward		6,569,571
Balance on Hand, say		100,000 lbs.

SHIPMENTS OF WOOL GONE FORWARD TO SEPTEMBER FIRST.

New York	2,472,324 lbs.	
Boston	1,187,684	
Hamburg	168,042	
China, estimated	50,000	
		3,878,050 lbs.

HOME CONSUMPTION.

Mission Woollen Mills	441,729 lbs.	
San Francisco Factory, estimated	120,000	
		561,729 lbs.

SHIPMENTS GONE FORWARD SINCE SEPTEMBER FIRST.

New York	996,886 lbs.	
Boston	843,692	
Liverpool	4,200	
Hong Kong	5,430	
		1,850,208 lbs.

HOME CONSUMPTION.

Mission Woollen Mills	99,584 lbs.	
San Francisco Factory, estimated	180,000	
		279,584 lbs.
Total Shipments Gone Forward		6,569,571 lbs

TABLE SHOWING THE AMOUNT OF WOOL PRODUCED IN EACH YEAR, FROM 1855 TO 1862, INCLUSIVE.

	Pounds.	Inc'e per Cent.
1855	360,000	
1856	600,000	66
1857	1,100,000	83
1858	1,428,000	30
1859	2,378,000	66
1860	3,260,000	37
1861	4,600,009	41
1862	6,400,000	40

PRICES CURRENT FOR SPRING AND FALL WOOL.

	Spring Wool.	Fall Wool.
Merino	25 *a* 28 cents per lb.	25 *a* 26 cts per lb
Half Merino	21 *a* 25	22 *a* 25
American	19 *a* 21	18 *a* 22
Half American	17 *a* 19	18 *a* 20
Mexican, with Crosses	12 *a* 17	16 *a* 20

Burry, from 4 to 5c. per lb. less for each grade.

The past three years have been marked by a steady improvement in quality of our wool, and in a less degree by a more careful attention to putting them in marketable condition by the farmers. Upon this point too much importance cannot be laid. The improvement in quality and quantity will go steadily forward from this time onward. Our farmers have expended more money upon fine wooled breeding sheep within three years than any other State in the Union

has done in any ten years, but they will lose much of the benefit of these investments, unless they give to the shearing, tying and packing of their wool much more attention than they have yet done.

In the commencement of the wool business in California, some dissatisfaction occurred on the assumption that the few dealers and shippers of this article were enabled, owing to the fewness of their numbers, to successfully combine to reduce the price accorded to the grower below that which would afford a legitimate profit to the shipper; the consequence was that a Wool-Growers' Association was formed. This association is composed wholly of men interested in the business of wool-growing, and any one so engaged may become a member upon application to its Secretary. It now nmmbers some seventy of the leading wool-growers in the State, and through its agents at San Francisco, Messrs. Clark & Perkins, extends every possible facility to wool-growers, for the sale of their wool here, or for its shipment to the larger markets of the East, or to Europe, at the lowest possible rate of charges.

Through its Secretary, Mr. J. E. Perkins, (of Clark & Perkins,) it collects all the information derivable from an extensive correspondence bearing on the interest of wool-growing, and disseminates this information from time to time by means of circulars, addressed not only to the members of the association, but to all parties interested in the business, whose address is given to the Secretary.

With such an association, combined with the ordinary competition of private enterprise, there exists no reason to fear that in future any such monopolizing tendencies as have been charged will again occur. The great amount of mercantile and manufacturing capital which must necessarily be more and more attracted to the subject, along with increased production, will form a natural safeguard.

MINING.

In whatever phase we view mining, at the present season, it rather presents a dull aspect, for even the deep, or mining in the true acceptation of the term, is in some degree affected by the season, both below and at grass. In the former case, owing to the occasional and unwelcome entrance of water beyond the summer level, but chiefly in consequence of the difficulties which occur and retard the reduction of the ores during the winter over the summer season.

We have often been asked what ought mines to pay in order to cover the risk of uncertainty so as to make investments therein equal to those of a more permanent character. We can only reply to this comparatively. In England, whose mineral wealth of all classes, when at grass, is estimated at two hundred million dollars annually, and where mining has been fairly systematized for more than half a century, it is always considered that mines that have paid pretty regula-dividends for a year or two, are worth four years purchase of the annual dividend. This is in a country where the ordinary rate of interest on mortgage or similar securities cannot be rated above five per cent. per annum, and consequently assigns the rate of dividend-paying mines at 20 per cent. per annum as equivalent thereto. If this rule was made to apply to California, where interest on mortgages ranges from 12 to 18 per cent. per annum, it would require mining stock to pay 60 per cent. regular dividends for a year in order to make the same of equal value with investments on real estate security. It must, however, be borne in mind that when so high a rate as 60 per cent. of the capital originally invested is returned in so short a space as twelve months, that the value of the property is proportionably increased. It would perhaps, therefore, not be unfair to say, taking all the additional risks incident to California mining, that mines which have paid dividends regularly for twelve months from its fair earnings, that the actual value is equal to two and a half or three times its annual dividends.

THE SHEEP BREEDERS' GUIDE.—The relationship of the proprietor of the CALIFORNIA WINE AND WOOL REGISTER with the publisher of the above entitled work, printed in California, and written by a Californian, chiefly with California objects, precludes our making any personal comments. It may, however, be remarked that a few copies still remain on sale and can be had on application to the publisher.

We may, however, be permitted to observe that the *American Stock Journal* of last January, in introducing the matter to its readers, preliminary to the insertion of a chapter from the *Sheep Breeder's Guide*, observed: "This chapter will be found to contain many important facts, some of which are not known even to the best informed sheep breeders." Subsequent to the appearance of the above in the *American Stock Journal*, a writer of deservedly high repute in that publication (Tamworth) has remarked in the March number, which only recently arrived, in consequence of the disturbed arrangements of the mails at that period, in an article on *The fat forming Power in Animals; its use and Perversion*, that: "In the chapter on sheep breeding, given from the *Sheep Breeder's Guide* in the *Stock Journal* for January, *which exhibits a grasp of observation*, soundness of judgment, and well sustained ability, very rarely to be found in any writer. There is a single passage which I wish to transcribe, by way of introducing the subject of the succeeding remarks. The writer—Mr. Rowlandson—says in substance: "Animals naturally accumulate their fat in the inside, in the form of what is known as offal fat, etc., etc." In another part of the same publication the *Sheep Breeder's Guide* is quoted by Crito, in an account of "the statements very ably made by Mr. Rowlandson, of California."

SONOMA WINE.—This wine was first introduced as an article of commerce in May, 1861, the principal amount coming from M. G. Vallejo and Haraszthy vineyards. There are two kinds of wine—red and white. The wines from the Sonoma Valley are lighter than the Los Angeles and more adapted for table use. The agent for these wines, James B. Godfrey, Montgomery street, says that since they were first introduced about 15,000 gallons have been consumed, and the demand is steadily increasing. The amount of wine from the different vineyards up to the end of 1861, suitable for market, was about 50,000 gallons. The vintage of 1862 has produced throughout the valley about 150,000 gallons, which will be ready for sale about one year hence. A considerable amount of white wine is every year converted into a sparkling wine, under the name of Sonoma Champagne. The experiment was made with the Los Angeles wine some years ago, but the wine was found too heavy to be converted into Champagne. The wine from certain vineyards in Sonoma Valley is found to be just the thing for a sparkling wine. There will be 7,000 cases of this ready in March, made from the wine of 1861. Every year improvements are being made in the manufacture of red wine; that from Vallejo's vineyard having already quite a reputation as a good table wine, resembling somewhat the flavor of Burgundy, and yet possessing a sufficiently distinctive character to be "*sui generis*."

THE AMERICAN STOCK JOURNAL.—This popular agricultural journal, published in New York, commences its fifth volume on the 1st of January, 1863, and will be forwarded as usual to subscribers throughout the State. On that branch of agriculture to which the *Stock Journal* devotes itself, no other periodical in the United States compares with it, for ability and economy, and will be found a valuable acquisition to all interested in stock on the Pacific coast. The publisher of the WINE AND WOOL REGISTER will attend to all orders, he being the sole agent for the Pacific coast.

History of Vineyard Culture in Napa Co.

EDITOR WINE AND WOOL REGISTER.—A few small vineyards were planted in the middle and upper portions of Napa Valley, from nine to twelve years ago, by the first American settlers, who then supposed that irrigation was indispensible to the growth and productiveness of the vine. Experience has satisfied them that irrigation is not only unnecessary, but hurtful. Frequent stirring of the ground, to prevent the escape, by evaporation, of the water brought upward by capillary attraction, is substituted.

Within the last three or four years at least two hundred and fifty thousand vines have been put in vineyards in this county, and preceding that time, inclusive of the first planting above named, probably from fifty thousand to seventy thousand more, making the present aggregate not far from three hundred and twenty thousand, as reported at the late grape-growers convention.

Some large vineyards, from twenty thousand to forty thousand vines, have been planted in this neighborhood on land which our farmers had regarded as unfit for cultivation—too dry to produce anything. The experiment has proved that the vine feels itself very much at home in this neglected soil. Portions of them, thirty-two months from the time they were planted as cuttings, were found to have main stems an inch and a half in diameter and loaded with from six to ten pounds of the very choicest kind of California (Mission) grapes. I have some forty varieties of foreign grapes growing in the same kind of ground, many of which yielded fruit the past season, but none to my taste more luscious than the native, and it remains to be proved that recent importations will make a better wine. The weight of authority, however, is on the side of some varieties of French and German grapes, for making choice wines.

The above may serve as valuable practical hints to men whose land is too poor to grow wheat or beans, and who are themselves too poor to buy foreign vine plants at $80 to $120 per thousand.

And now the vital question presents itself—will the business pay? Our old vineyards in this valley, when six years old and later, have yielded annually from fifteen thousand to upwards of twenty thousand pounds to the acre. The average price of grapes in San Francisco the past two seasons, at wholesale, has exceeded three dollars per hundred pounds. Let us suppose the average yield of large vineyards to be only ten thousand pounds, and the price two cents a pound, we then have a crop worth two hundred dollars per acre.

Wheat is the great staple of this valley. Eighteen hundred pounds to the acre is a good crop, and two cents a pound a good price. Hence the wheat grower gets thirty-six dollars per year, per acre, and the vine grower two hundred. The expense of culture, after the vineyard is established, being nearly the same in both cases.

Which will pay best?

Some very respectable crops of tobacco were raised in this county the past season, and much more will be planted the ensuing. VITIS.

☞ Bound volumes of the "American Stock Journal," from commencement, now ready. Address the Publisher of this Journal, at Sacramento or San Francisco.

TO OUR READERS IN THE UNITED STATES AND EUROPE.—Stock raisers, manufacturers, and others, will find the columns of the WINE AND WOOL REGISTER the best medium to make themselves known in California, as this journal, from its peculiar character, will circulate extensively among the stock breeders and agriculturists of California and Oregon, as well as the business men and merchants of the cities.

All advertisements must be fully and plainly marked as to space, and time of insertion, and be accompanied with cash or reference.

Electrotypes and portraits of stock, as well as all correspondence, etc., should be addressed to the Publisher, Sacramento.

TOBACCO SEED.—We have received, through the kindness of Messrs. Green, Heath & Allen, some pure "Virginia Tobacco Seed," for the purpose of distribution among such parties as may be desirous of cultivating the same, on condition that the parties so receiving seed, will furnish an account of their success, or otherwise, mode of culture, etc., for publication in the WINE AND WOOL REGISTER. Letters forwarded to the Publisher, inclosing postage stamp, and requesting seed, will be duly attended to.

CONNECTICUT SPANISH WRAPPER SEED LEAF.—We have received per favor of Mr. T. Ellsworth of San Francisco, some seed of this species of Tobacco, which is well known to the manufacturers of Cigars. The leaf is of a fine silky nature, averaging three feet in length. Mr. Ellsworth has seen it attain a length equal to four feet, in favorable localities. This number we are compelled only thus briefly to allude to the matter. We shall cheerfully attend to applications for seed to the extent which Mr. E. has so kindly afforded us the means of supplying.

BUTTER AND CHEESE.—In our next number we shall endeavor to afford some statistics respecting the important products named in the preceding caption. It may, however, be interesting to learn the amount of cheese disposed of by some of the prominent dealers in San Francisco, during the year 1862: Dodge & Shaw, 600,000 pounds, principally from Gilroy: Elder & Son, 500,000; E. W. Linsley & Co., 210,000; Amos & Ryan, 160,000.

SECOND CROP OF CALIFORNIA TOBACCO.—The fact is established, we believe, that tobacco can be very successfully cultivated in California, and we also believe that the valuable plant will grow well in the foothill counties. Among the experimenters in Amador county are Clark and Kinney, whose ranch is near Jackson. This year they have raised two crops. We have some of the leaves of the second crop which are remarkably large, and the appearance of both crops is sufficient to test the adaptation of the soil and climate about Jackson to the profitable cultivation of tobacco.—*Amador Ledger.*

☞ TALENT and WORTH, are the only Eternal grounds of distinction. To these the Almighty has fixed his everlasting patent of nobility, and these it is which make the bright, immortal names, to which all may aspire.

COTTON AND TOBACCO SEED.—Such of our readers as may be desirous of making trial of the cultivation of these two plants, can obtain genuine seed on application to Mr. Geo. Silvester's. See advertisement.

HIDES.—We have up to the period of going to press, been unable to ascertain the actual statistics relating to this subject—tallow, etc. Its importance may, however, be gathered from the fact that about 1,200 hides per week are dried in San Francisco, alone, three-fourths being dried by Messrs. Smith & Willoughby at their newly erected establishment, at the Protrero Nuevo, near Mission Creek, who are now doubling the extent of their establishment.

Green hides have and continue to range at about three to four dollars apiece; common hides, dried, are worth fourteen cents per pound, delivered on the wharf; and very well cured, heavy hides, are worth from sixteen to eighteen cents per pound. On a future occasion, we shall give some hints to stock owners on this subject, at present we can only state that country dried hides obtain an inferior price for exporters.

UNFERMENTED BREAD.—We must refer our readers to the advertisement reciting the various advantages attaching to this species of bread over that which is made by the old custom of employing yeast, leaven, or yeast powders.—Whether the advantages claimed by the Unfermented Bread Company are greater or less than those set forth by it, and we confess to our inability and too short acquaintance with the subject, to pass any decided opinion thereon; but on two points we think we may favorably pass an opinion, namely, its uncommon whiteness, and its freedom from dirt or other extraneous matter; the latter being a necessary consequence of its manufacture being completed, from the emptying of the flour sacks to its extraction from the oven, without passing through living hands.

NOTICE TO CORRESPONDENTS.—We shall in every publication devote a portion of its space to the insertion of original correspondence, and also under this caption will be briefly inserted querries and replies to questions not requiring to be set forward in a more conspicuous manner.

We have to acknowledge the receipt of a letter from Messrs. Stout and Peden, of Alamo, detailing the results of their practice in the cultivation of tobacco in California. It arrived, however, so late that it was found impossible to insert their letter in this number, but shall appear in the next. No loss will occur from the delay, as we have inserted all the requisite information for the seed bed; another number will be issued before such will be fit to plant out. We shall therefore leave the subject, by observing to all intending cultivation of tobacco, save and gather up all the ashes you can, for use either on the seed bed or at the time of planting out.

CALIFORNIA WINE FOR CHINA AND JAPAN.—We are glad to learn, through Messrs. Hobbs, Gilmore & Co., the agents for the exclusive sale of the produce of the vineyard of B. D. Wilson, Los Angeles, that they have already shipped 500 cases of their wine to China on execution of orders received therefrom, and that additional quantities will be shortly sent per trans-Pacific steamer *Scotland*, which will shortly sail to Kanagawa, Japan, and China. They are further shipping 52 pipes ex *Gleaner*, for Boston, and the same amount will be forwarded by the next vessel. This looks well for California wines.

TO PUBLISHERS.—All books designed for notice or review, will receive due attention, especially those having a bearing upon any of the topics of this Journal. *Publishers will be particular* and address parcels to the WINE AND WOOL REGISTER, California.

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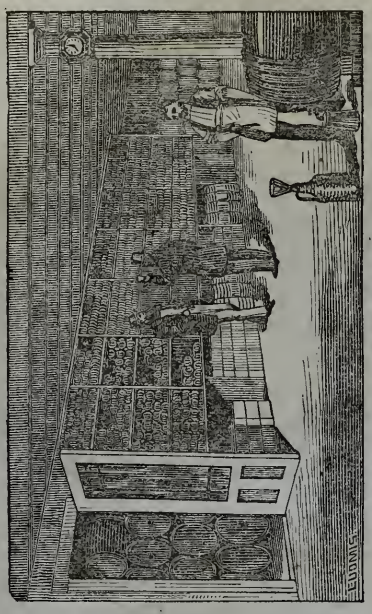

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CALIFORNIA

WINE AND WOOL REGISTER

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SACRAMENTO: FEBRUARY, 1863. NUMBER 2.

Madeira and Sherry.

WE have only time, this number, to very briefly remark about the abovenamed world-renowned wines, the production of which appears to have entirely escaped the attention of those who have most deeply interested themselves in vineyard cultivation, yet the former one more than usually merits notice at the present moment, from the fact that it has almost ceased to become an article of commerce, owing to the ravages of the oidium, and whether it will ever recover its pristine vigor on its original habitat is uncertain. Whether such should prove, eventually, to be the case or not, it is well worth the attempt being made to secure a few thousand cuttings for trial in suitable positions in California, as it is more than probable that above all other celebrated vines the *Verdelho* grape of Madeira would not only prosper the best, but would afford a wine not only most congenial to the tastes of its American and a large part of its foreign population, but at the same time, be the best adapted for exportation and suited to the tastes not only of our fellow citizens at the East but particularly well calculated to fill up the void occasioned by a supply of this highest esteemed wine among the European residents of the East Indies, China, etc., where a large and profitable market has always existed for good Madeira Wine.

The *Verdelho* grape formed the chief source for the manufacture of Madeira Wine, and we have good grounds for affirming that the best of those wines were almost if not exclusively made from this grape.

It is a very productive vine, yielding numerous branches, which, however, are neither large nor heavy, the berry being small of an oval shape, frequently containing many small berries interspersed through the bunch that are without seeds.

The fruit is very acid until it arrives at the last stage of maturity, when the berries become of a fine amber color, and of a rich flavor, containing much saccharine substance. A light, dry soil is most suitable to its growth, and would, we think, succeed well on dry, gravelly hills, facing the east and south. The leaf is very thick, possessed of a dark, green color, from which fact its name has probably been derived; it possesses the property of resisting the evil consequences of frost more than a great number of varieties, and, in this respect, would probably at low elevations and below the parallel of San Francisco, be all that could be desired. The chief features, just noticed, are such that it is very important that an energetic attempt should be made to secure a trial of its qualities in California—especially as its general characteristics point to the fact that its decadence has been more owing to centuries of neglected cultivation, rather than natural constitutional debility.

We have never received accurate information as to the peculiarity of the grape which has, for centuries, furnished the renowned Sherry or Sherris Sac of Falstaff, so-called as being a dry wine, or wholly fermented, in con-

tradistinction to sweet sherry or partially fermented wine, both of which are made from the same grape, not unfrequently from the same pressing. We have had shown to us large, white grapes sent from Xerez de la Frontera and Malaga, which we were assured were similar grapes to those from which the best wines of both places were made; we could perceive very little difference in appearance or flavor of the fruit, although one was grown on the southwestern, and the other on the southeastern coast of Spain; but the character of the wines from these respective vineyards, were entirely different—the former being high-flavored and alcoholic, while the latter were almost flavorless and weak. We have subsequently thought that these discrepancies have probably arisen from the possibility of irrigation being commonly adopted in the eastern part, while in the western portions it is not so, a sufficiency of rain falling, owing, in a great measure, to the western coast's proximity to the Atlantic. Whatever the cause, this is most certain, that in no other part of Spain is there made any white wine at all comparable in flavor with that made within a small distance around Xerez de la Frontera; respecting which, it may be further stated, that no other wine improves by age in an equal degree; so well established is this fact among the great wine exporters of St. Marys and San Lucar, that scarcely any price would induce them to sell their *Madres Botas*, (mother butts) that have arrived at more than thirty years of age, and some affirm that they have such as old as sixty years certain—and probably, containing some wine double that age, having been filled up from vintage to vintage; as an estimated value, such *Madres Botas* have had a price set upon them equal to $5,000 per butt of 130 gallons, or about seventy cents per wine glassful; we once had an opportunity of tasting some, a quarter butt of which was invoiced at $1,000, and cost the owner, when bottled, about sixty-five cents per glass.

Wine Growers' Circular.

The Wine-Growers' Association has published a circular address to all the owners of vineyards and makers of wine in the State. On one page it gives a copy of their Constitution and a list of the officers of the Association. It reads:

You are solicited to join, and induce others to join, the California Wine-Growers' Association, which was organized in this city on the 9th inst. None of the money now subscribed will be used to pay any officer, but all will be employed directly in such manner as will advance the prosperity of the wine-growers of the State. The interests at stake are important, and they cannot be properly protected without joint action. You can send the fees of membership to Charles Kohler, in this city, or pay to Kohler & Frohling, Los Angeles, Charles Van Gulpen, Anaheim, or John Lutgens, Sonoma.

On the opposite page is the subjoined petition, which all wine-growers are requested to sign and forward either to the Secretary of the Association or some member of the Legislature. Any persons who desire to get copies of the circular can get them on application to the Secretary. The petition is as follows:

To the Honorable the Senate and Assembly of California:

Your petitioners, wine-growers of this State, respectfully represent that the tax of five cents per gallon, levied by the National Congress, upon all wine made in this State, is unusual, oppressive and injurious to the agricultural interests of California, which is the chief wine-growing State in the Union. Other agricultural products pay no tax at all and manufactured articles pay only one-fifth as much as wine. This great discrimination against us is without justification, and must have had its origin in ignorance of California's interests, which, when known, will, no doubt, receive as much favor from the National Administration as the interests of any other State. We respectfully represent to your Honorable body that wine-growing is the most important agricultural interest in the future of our State. The only agricultural products which exceed it now or will probably be rival to it hereafter, are wheat and barley, and it should not be our policy to grow them for exportation. They impoverish the soil and require a rotation of crops to which our climate is not favorable. Besides, they can never be regularly profitable, because they can be grown in equal abundance and at less cost by the Atlantic States, Oregon, Washington, Chile and Northern Europe. No other article grown upon our soil will keep so well, or find a market so extensive, certain and profitable as wine. Neither is there any other article for the production of which our climate and soil are so pre-eminently fitted. This, then, is the interest to which we should grant peculiar encouragement, but which the National Congress has selected as the object of a tax of extraordinary severity.

We pray you, therefore, to make a formal declaration that the cultivation of the grape is one of the greatest and most cherished resources of California's wealth. After such a declaration, no Congressman will be so inconsiderate as to attempt to select it as the only agricultural product for taxation, or impose upon it a tax five times as heavy as that levied on any manufactured article.

We further respectfully represent that the number of vineyards is rapidly increasing, that extensive tracts of land in the interior valleys and on the slopes of the Sierra Nevada are extremely well fitted for producing wine, and that the prosperity of the State is intimately connected with encouragement of the culture of the grape. We therefore pray that you will enact a law to exempt from taxation all vineyards in which the vines may be less than five years old, before which time they are not in full bearing.

ADDITIONAL PAPERS SUBMITTED TO THE WINE-GROWERS' ASSOCIATION.

In order to afford the readers of the REGISTER as copious an account of the proceedings of this Association as practicable, we insert the following communications. The first is a translation from the German, of a letter addressed by Charles Van Gulpen, Esq., of Anaheim, to the Wine Convention. It is as follows:

ANAHEIM, November 30, 1862.

No branch of industry has hitherto been more neglected in the United States, and for the products of which we are more dependent upon foreign countries than wine-growing. When we think of the immense sums sent away annually to purchase wine, which may be considered a necessity for every civilized nation, too much importance cannot be attached to domestic production, and instead of burthening and oppressing it, wise legislation should adopt every possible means to protect and foster the cultivation of the grape. The fitness and ability of the soil and climate of California for the production of a good wine, is one of the happiest advantages of this country, and under favoring circumstances will soon have the effect of making the United States independent of foreign lands for the supply of this important article.

Besides, the cultivation of the grape opens many incidental sources of prosperity and wealth in every country where it has attained any considerable importance, and no measure adopted by Government can be more injudicious than one which would suffocate this branch of industry, while it is still in its germ. Domestic wine-growing is oppressed whenever Government favors the importation of foreign wines, by the imposition of unequal burthens upon the article produced at home.

The Californian wine-growers have, besides, to struggle against all the difficulties which beset new branches of in-

dustry, and in consideration of such facts, and of the great benefits to arise from the business when once fully in operation, it is customary with all enlightened Governments, even the Russian, to grant entire exemption from taxation for a number of years. The establishment of all new kinds of productive business is rendered very difficult by the high price of labor, and especially since the introduction of legal tender notes, the prices for the most of the necessaries of life have so advanced that the increase of wages has become an almost insurmountable obstacle for us. But our heaviest burthen is the tax of five cents per gallon, while the *ad valorem* import duty is so small that the two together amount almost to a prohibition of domestic production.

Another fact, which deserves special consideration is, that these taxes are levied only upon the production of wholesome and pure wine, while the adulterators and counterfeiters are untouched, or left so that they can easily avoid the tax. The yield of an acre of vineyard, after it has been brought into its best condition by years of unproductive labor, is estimated at 1,000 gallons, and it must pay a tax of $50 annually more than the net receipts have hitherto been. The total production of all the Californian vineyards is as yet so small, that a very small increase of the import duty upon foreign wine would furnish more protection to us than the repeal of the five cent tax.

The tax upon distillation puts the proprietors of vineyards upon a level with the producers of coarse whisky, while the owners of orchards are permitted to distill 150 gallons of brandy from apples or peaches for $12 50. Every owner of a vineyard, even of the smallest, ought to have an apparatus to distill the skins, and the refuse of the press and the fermenting vat. Under the present law we are compelled to throw all our refuse away, because the taxes are too high. Many of us would be compelled to pay 25 or 30 cents for every gallon of grape brandy distilled. We propose, therefore, that we be placed under the same license required from the producers of apples and peaches.

The 50 vineyards of Anaheim have now 294,000 bearing mission vines, 127,000 mission vines not in bearing, and 10,800 foreign vines in bearing. At Santa Anna, in this valley, there are 32,000 mission vines in bearing; and at San Juan Capistrano there are 5,000 more. The total number of the vines in these places, which comprise all the vineyards in the southeastern part of Los Angeles county, is 468,000.

CHARLES VAN GULPEN.

VINEYARD STATISTICS.

The following are the attainable statistics of the owners of vineyards, and the respective numbers of their vines in Los Angeles and Santa Barbara counties. These vines are, with few exceptions, in bearing, and of the Los Angeles variety. Some of them are more than fifty years old, and are still thrifty:

TOWN OF LOS ANGELES.

Wm. Wolfskill	85,000	— Huber	10,000
Mathew Keller	61,600	W. Woodworth	10,000
Dr. Myles	50,000	Geronimo Ybara	10,000
J. R. Scott	50,000	Sisters of Charity	10,000
Sainsevain Bros	45,000	Mrs. Domingo	12,000
Morris Brothers	40,000	Paul Kern.	8,000
Antonio Coronel	37,000	Manuel Riquena	8,000
Jesus Matias	30,000	Agustin Machado	8,000
Francisco Lopez	30,000	Vincent Hoover	7,000
A. G. Boyle	30,000	Estate of Dr. White	6,500
McDonald & Wilson	25,000	Estate of Urquides	7,000
M. Clement	20,000	Victor Prudhomme	6,000
B. Maumus	21,000	Paul Prior	6,000
Mrs. Harvey	21,000	Lugarda McLaughlin	6,000
Porter & Wexell	20,000	Pierre Laseval	5,000
O. W. Childs	20,000	Charles Casagne	5,000
Volney E. Howard	20,000	Juan Ramirez	5,000
H. D. Barrows	20,000	Juan Apoblasa	5,000
Kohler & Frohling	20,000	Antonio Reyes	5,000
G. M. White	18,000	B. Virgen	5,000
F. P. F. Temple	20,000	Vicente Boteller	5,000
José Rubie	18,000	P. Bauer	4,000
Alexander & Bachman	15,000	Joseph Weibel	4,000
— De Long	16,000	Diego Sepulveda	4,000
Estate of Barton	15,000	Clara Reyes	4,000
— La Borg	14,000	Henry Clayton	4,000
Musser & Howard	17,500	Josefa Lopez	4,000
Abel Stearns	12,000	Francisco Alvarado	4,000
Estate of Carpenter	12,000	José Sepulveda	3,000
Louis Wilhart	11,000	C. Chapman	2,500
— Weingartner	12,000	Agustin Olvera	2,500
Peleg Collins	12,000	Estate of Valdez	1,000
Ramon Valenzuela	12,000		

ANAHEIM.

Hugo Schenck	16,000	J. A. Bauer	8,000
Rudolph Luedke	16,000	Henry Boege	8,000
C. F. Scholle	16,000	H. Werder	8,000
H. E. Boldt	16,000	John M. Metz	8,000
Theodore E. Schmidt	16,000	F. W. Knelp	8,000
C. Beythien	16,000	John Bach	8,000
C. Mosseman	12,000	C. Stappenbeck	8,000
John S. Hittell	12,000	L. J. Czapkay	8,000
Jacob Keller	8,000	August Hoelscher	8,000
J. Hartman	8,000	J. F. Andres	8,000
Henry Kramer	8,000	Henry Bremermann	8,000
George Hansen	8,000	Charles Rehm	8,000
E. Wenzel	8,000	Henry Kroger	8,000
— Sturenberg	8,000	Christian Kroger	8,000
Conrad Kuchel	8,000	A. Humboldt	8,000
C. A. Lorenz	8,000	F. Schneider	8,000
Henry Padderatz	8,000	— Rost	8,000
Charles Van Gulpen	8,000	F. R. Horstmann	4,000
John Fischer	8,000		

SAN GABRIEL.

B. D. Wilson	100,000	Henry Dalton	20,000
John Roland	19,000	Volney E. Howard	26,000
E. J. C. Kewen	30,000	J. Rose	20,000
Wm. Workman	40,000		

SANTA ANA VALLEY.

Bernardo Yerba	35,000	Teodosio Yerba	8,000

SANTA ANITA VALLEY.

Corbett & Dibblee	60,000

SAN FERNANDO.

Andres Pico	30,000	Juan Padilla	20,000

SANTA BARBARA COUNTY.

De la Guerra Bros	12,000	Charles Fernald	20,00
José M. Ortega	5,000	Mrs. N. A. Den	2,000
A. Packard	10,000	Catholic Church	20,00

In this county, four miles south of the town of Santa Barbara, there is a vine which was planted more than a quarter of a century since, and has a stalk now about ten inches thick. The branches are supported by a train or arbor, and extend out about fifty feet on all sides. The annual crop of grapes upon this one vine is from 6,000 to 10,000 pounds, as much as the yield of half an acre of common vines. It is of the Los Angeles variety. There is a similar vine, but not so large, in the vineyard of Andres Pico, at San Fernando.

THE ALPACA.

THE lengthy account of the official correspondence between Commander Bissell and the authorities at Washington extracted from the Philadelphia *Enquirer* respecting procuring Alpacas for naturalization in California, will compel us this number to limit our notice; we shall, however, from time to time, continue to furnish interesting details concerning their habits.

The attention of the Pacific public has only been called to these animals during the past two or three years, partly, we believe, by the Patent Office Report, but more particularly at a recent date by notices in the newspapers respecting the attempts to introduce them into Australia. As everything calculated to throw a light on the best mode of acclimating these animals, and their capacity for withstanding any vicisitudes of temperature, dryness and moisture to which they may be subjected in California, will be interesting, we have searched up the following information respecting them after being for some years domiciled in England, to which country they were first transported from the Cordilleras.

Although Alpaca wool had been known some years previously as an article of commerce, and had been largely manufactured by Mr. Titus Salt, the public attention had

not been called to the subject until the meeting of the British Association for the Advancement of Science, at Birmingham, in 1839, soon after which Mr. Dansen, who read a paper offered handsome premiums for the importation into that country of these animals, nomonally the rewards were paid by Mr. Atkins, of the Zoological Gardens, Liverpool. Captains trading to the west coast of South America, were thus induced to attempt their transportation. Whether from bad management, or difficulties pertaining to the subject, the mortality was frightful, and of those which arrived safe, it not unfrequently occurred that whole importations brought in safety by one ship, were either all males or all females; these being generally bought up by zoological gardens and menageries, became distributed in such a manner as to be utterly useless so far as concerned their reproduction.

We believe that the late Earl Derby was the first who succeeded in rearing young Alpacas of English birth, at his park Knowsly, near Liverpool. The most graphic account of their introduction, is that given by Mr. Alexander Gartshore Stirling, who produced a pair from Earl Derby's stock. After their arrival, he says:

"They were immediately put into the sheep-park, amongst the other sheep, which at first were astonished and stared to see such queer quadrupeds; but after a few days, finding no molestation from the new comers, they all became friends and fed quite comfortably together. But the amusing part of it was my shooting pony, commander-in-chief of the park—who became perfectly wild and electrified when he first saw them, galloping, snorting, kicking up his heels. The Alpacas, however, never fled from him, but *advanced*. At length *he* became frightened at *them*, probably supposing the blackamoors* to be "no cannie." However, in the course of eight or ten days, nothing but harmony prevailed amongst all parties. The Alpacas arrived the latter end of Augnst. When the weather became cold and the nights were getting long, a wooden shed was erected for them in the park. At first they hardly went into it; but when winter commenced, I made the keeper (whom they followed like a dog) put up a small rack in their shed, in which was placed some rye-grass hay. The weather was fine and they ate very little of it; but by and by, as winter advanced, they relished it better. I then ordered them to get a few turnips, which at first they seemed to like, but, tiring of them, I desired a little corn† to be given, which they partook of very freely; but one day the keeper told me they would not eat their corn, especially when the day was good. Having some excellent beans,§ I ordered the man to try them with a few. No sooner did the Alpacas hear the beans rattling in the dish than they showed an eager desire to have them, and during several months they preferred them to every other sort of grain; indeed, so much so, that upon some oats being intetmixed with the beans, the latter were picked out and the former neglected.

"What is extremely satisfactory, is the *hardiness* of these animals, compared to our sheep, and their indefatigable perseverance in searching for food, when sheep would to a certainty starve. I may state that this winter, 1843–4, has proved a most severe one. The park in which the Alpacas and sheep were confined, was covered for nearly three weeks with snow, and during that time there was not a vestige of herbage to be seen, with the exception of some little green tufts under the trees. The sheep require to be regularly fed with turnips and hay. Not so the Alpacas; they were seen the most stormy days, under the trees for hours, constantly eating the grass and never minding either the cold or snow. They have never had a day's illness, have never attempted to leap a fence, and are far easier to keep within an enclosure than the common sheep."

In the appendix to the SHEEP-BREEDER'S GUIDE, is the following notice respecting the Alpaca:

"THE ALPACA.—The employment of the hairy covering of this animal as an element in the manufacture of cloth suitable for raiments, has only a very recent date, scarcely more than thirty years. Notwithstanding which, the business of manufacturing Alpaca wool has assumed stupendous proportions, and as with cotton, the cry is still for more. They have recently been introduced into Australia, and several attempts have been made to naturalize them in England, though, from causes which it is difficult to account for, they have never made headway. Whilst engaged on an agricultural and mineral survey of the extensive Highland estates of the Marquis of Breadlebane, I had an opportunity of inspecting an Alpaca that had been living five years on the Breadlebane property. It was then healthy, the wool fine and silky, and far ruperior to the bulk of that imported from Peru. The chief shepherd, Mr. Aitken, informed me that it was quite a favorite, was very docile, would eat carrots and turnips in winter from the hand, and that if there was an error in management, it was in consequence of being made rather too much a pet of. The fleeces of some old animals are said to yield twenty to thirty pounds, the probable average is seven to eight pounds, worth at the port of shipment from thirty to fifty cents per pound. The Alpaca inhabits the cold, rocky elevations of the Andes, immediately adjoining the region of perpetual snow, and would doubtloss easily acclimate on the cold elevation of the Sierra Nevada."

Alpacas are variously colored, black, brown, grey, mottled, and white, the first and last being the kinds most esteemed. It is an inhabitant of the Cordillera range, and does not suffer from the effect of great moisture. It is stated that it does not prespire like sheep, and on that account its wool is very clean. We suspect that this merely implies that the wool has no yolk attached to it, as is the case with the wool of sheep.

Of the varieties, the Llama has a short, coarse wool; the Alpaca has a long wool, as fine as silk, and the Vicuna has a firm, short wool.

It is quite evident, from the preceding accounts, that the Alpaca and its congeners are admirably adopted to occupy such upland valleys amidst the Sierras as are free from timber, and to some extent might probably be made useful as beasts of burthen. The meat of the Alpaca is said to be good, and the hide makes excellent leather.

Cuba Tobacco Grown at Vicksburg, Miss.

THE following account of the successful growth of Cuba tobacco at Vicksburg Miss. lat. 32°50′, is extracted from a report made by Mr. R. G. Rogers, so long ago as December, 1849. Mr. Rogers states that a considerable quantity of this species of tobacco is raised in the neighborhood of Vicksburg; but generally in small lots of from half an acre to an acre; the whole of the growth is made into *regalia* cigars, and sold as such in the State, at the rate of from $15 to $30 per thousand; the price depending principally on the care and attention given to the curing, etc. Mr. R. states that for the previous two years he had realized the highest price for all that he had grown. He paid $5

per thousand for making, and boarded the hand. A good hand made from 200 to 250 per day; the boxes, holding 100, cost five cents each; 100 pounds of tobacco made about 4,000 cigars. An acre produced about 600 pounds of this kind of tobacco, and generally netted the grower, in this way, about $1 per pound.

In the communication from which the above was extracted, Mr. Rogers expressed a desire to obtain seed of the *Persian* variety, from which Bengal cheroots are made, or the Brazilian species—the latter, we believe, is the variety from which the Varina Canastre is made in Caraccas, Venezuela, and New Granada; the seed of the first named, might be obtained from Manilla.

The above account would make it quite probable that Cuba tobacco could be successfully grown in California, and has induced us to give some additional details in another part of the present number, which will be found highly interesting.

TOBACCO CULTURE.

SINCE the first number went to press, we have been favored, through a friend, with a copy of a translation by James S. Peacocke, from the original Spanish work by Julien Sylveyra, Havana, on "*The Cultivation and Cure of Cuba Tobacco*," a work respecting which a prohibition existed, in order to prevent any copy being taken out of the Island. Although not wholly adapted to California, yet it contains so many important details that we thought it better to give it to our readers in an unmutilated form, and comment on it after it was finished. The space so occupied will compel us also to omit the insertion of a communication from Messrs. Street & Peden, containing information of a practical character, and which is highly important, so far as it shows that the gentlemen have been successful in raising Tobacco in California without being under the necessity of varying the modes adopted in Maryland, Virginia, Connecticut, full details of which shall appear in the WINE AND WOOL REGISTER before planting-out time arrives. The management of the seed-bed has already appeared, and will suffice the intended cultivator for all practical purposes until planting out should be effected, if we add that a good mellow soil should be got into order, ready for the plants, and as many ashes obtained as practicable:

ON THE CULTIVATION AND CURE OF HAVANA TOBACCO.

In the beginning of May, the labors of the tobacco growe commence, at which period I prepare the land destined to be the field, plowing and harrowing it three or four times in all during the month; by this operation I have destroyed the sprouts of the seed which spring up during the first rains. I then divide said land into parallelograms from north to south, fifty yards in breadth and two hundred in length, divided by spaces of four yards, sufficiently wide to allow a cart to pass, and in which I go depositing the pure manure of the horse, of which preparation I shall speak hereafter. In the middle of June, the land being regulated to this order, I furrow across the breadth of the parallelogram from east to west, at five-fourths of a yard distant. I pass the plow through the furrow three or four times, in order to widen and deepen it as much as possible, to be able to facilitate the operation of finishing the furrow for the hand of the man, making a ridge which I collect to the south side of the said ditch which shall be made in the said field. This operation being concluded, and all the manure gathered into the spaces which foresight and dilligence could collect, already the benificent rains have soaked many times these ditches. I should follow after that, placing the manure in them, distributing by rule the quantity, without exceeding a fourth part of its depth, which excess would injure the powerful tone of the plant. I should add to the said manure two-thirds of the decayed earth, and should stir them together until they are perfectly mingled, then leave them until they have received two or three rains, concluding the operation by covering with the rest of the dirt or earth, forming a ridge or dyke, whose declivities turn within the ditch, and through them the water passes to the interior or bottom, when it will effect the ultimate fermentation of the manure combined with the earth which impede the rapid march that ought to be made in a field so precarious and delicate.

At the middle of June should be concluded the operation of opening the ditches, and, in the five subsequent days, the distribution of the horse manure, mixed with two-thirds earth, in which state it should be left until the end of the month, to give it time to soak in the rains that fall upon it; after that cover it in the manner referred to. The middle of July will be the time to commence the formation of land destined for seed plots, which will be as extensive as the means of the proprietor will permit. The ground being well prepared, and kept entirely free from those insects which are accustomed to infest it, will produce great gains, bring forth abundant and choice plants of which to make the field, and a sure sale of the residue, which will always find purchasers.

The operation of making seed plots is exceedingly simple; without delay seek a particular method, that when treated will produce a good result. It suits not that the land be very rich, because the plant would be too precocious, and happening to suffer mistakes at the time of arranging them for transplanting, placing them very tender, in the belief of their being well advanced, for their great size would infallibly cause them to die, or if not, to degenerate or form a bad plant. It is better that the land should be somewhat broken, but if that could not be obtained, I would form high levels, avoiding always the low, since they are notoriously prejudicial. The plots should be formed two rods in width and eight in length, divided by paths a yard wide for passing and re-passing. I would point holes in the patch or plot, not very deep, with a pick axe or mattock, leaving the paths untouched of their natural hardness; but if very sandy and light, press them down hard, to impede, without delay, the intruders which unfortunately invade sometimes the plot. I would endeavor to break the surface as little as possible, and enrich it a little, lightly with powdered dirt well sifted, which should be mingled perfectly with the plot, freeing it from all sweepings of the litter that might occupy the ground and produce insects in it, for the causes that I will explain might appear in these places. For this account it is prejudicial to form the plot with boards of palms or other things. In the beginning of August, two or three patches should be sown, with a light handful of seeds, perfectly free from dust and straw, by which the experienced workman will be able to judge of the quantity sown, endeavoring to have it sparsely sown to the end, that springing clear it may increase with freedom, free from those inconveniences which would result from too close contiguity, putrifaction arising from it being the worst that can appear. And when in this multitude there succeeds any breaking or crushing, it is the cause of engendering insects without number, whose authors are decomposition and the odor arising from plants crushed

and dying. If it happpens that in sowing the seed, any should fall out of the beds and spring up, I would gather them up and throw them beyond the precincts, to prevent those passing in the paths from treading upon them, producing those injuries above referred to. Every three days I should repeat this operation with the above mentioned patches, even to the conclusion of the seed patch: recommending always the greatest care in saving, the lack of plants being preferable to exposing all to inevitable destruction, when thickness produces putrefaction, which is easily occasioned by the want of air to the tender stems, and the indispensable moisture which the young leaves suffer in the pressure they find, which disengages the balsamic odor of the plant, attracting from a distance butterflies and other insects that destroy. If there happens a failure of water in those days, I would water the patches every moderate morning with a fine sprinkling, without opening the hand, that a surge of water might be avoided, which would be noxious to the springing plant. I repeat it once and a thousand times, that nothing is so prejudicial to tobacco as the putrefaction of its own leaves, badly treated from whatever cause, and recommending so much care from the beginning, that the existence of its many enemies may be avoided. And I would carefully pull these leaves from the growing, obtaining the benefit to the plantation, that the healthful leaves are preserved, while the above mentioned injuries are kept away. The plants should be irrigated early in the morning as possible, in order to imitate benificent nature in this respect, which does it all in the night in the midst of serenity, keeping the ground moist most of the time after the going down of the sun. It is extremely prejudicial to irrigate in the afternoon, on account of their having been heated by the excessive warmth of the sun, and the irrigation producing immediately a violent evaporation, causing a true boiling in the plants, nearly kills them, or if not, they grow in extreme debility and never produce good plants for the field, sacrificing by this bad practice the tender victims of so many labors, and from which was expected a source of fruitfulness. After the seeds of the tobacco spring up, the foreign herbs should be weeded out, those which existed in the land, as well as those which were in the manure placed on the plots; hot, however, interfering with them unless they occupy the place of the tobacco, impoverishing the land of the fertility which ought to be employed on the plant for which it was destined, and in this case remove them with much delicacy and gentleness, in order that the plants be not injured in avoiding more fatal consequences; neither should any of the herbs be left on the beds or paths of the plot, because their stay in any part of the precinct would be prejudicial. Equally noxious is the practice of covering the seed plots to preserve them from the sun, whose beneficent heat dilates the impulse, which impels the sap to the tender leaf, giving strength to its fibres, and the elasticity which hastens its development, the scales falling which held them, the patches unfurling, expanding and shooting to the light, acquiring force, the organs strengthen themselves as the bond is broken, it begins to increase and take the true color. Its elastic stalk, solid and moveable at the same time, subministers a part of the nutrition; glue is in the ascending sap, and sporting, moving itself in the air, attracts from the atmosphere all the principles which form the descending sap, beautifying and nourishing the plant which sustains it. When the seed plot has arrived at a condition for transplanting, I would open for the first time the field, and with pick axes, very sharp, would free the ground perfectly from all herbs, clearing and removing all litter, that the paths might have no filth by which to engender an infinite variety of insects which would be enemies to this new host that is exclusively to inhabit this *mansion*. I would open with pick axes the furrows which are necessary to make the first field, leaving closed the rest until the time for using them. I would take two-thirds dirt, mingled with manure, placing it to the north of said furrow, for use when needed. I would equalize the spot, removing it slightly, in order to separate it and make soulable the dirt which is going to receive the planting. In case of much drouth, I would sprinkle these furrows, that young the plant might encounter sufficient moisture, and not experience this operation after transplanting, which would need it more abundant on this occasion; yet a superabundance would be injurious. It is easy to know the importance of this operation; that removing from the plant the soil that sustains it, opening the source of vegetation which receives the new plant, it can but be compelled to give all its vigor and fertility to the host, which should receive all its benefits. The tobacco plant is a nice observer of whatever can administer to it from the soil or atmosphere, as much for the facility that the oblong configuration of the leaves gives, whose extraordinary size is evidently to collect the constituent parts from the air, which forms the descending sap which goes to nourish it, as for the manner in which its roots elaborate the nutritive parts of the soulable sap, and the nourishing elements contained in the preparation of the land, since it is well known that the leaves suck and elaborate the moisture, and also that they decompose the atmospheric, appropriating to themselves the fixed air, carbonic acid gas, or the essential principle of vegetation, absorbing the useful part and throwing off the useless. The season for transplanting is when the young plant has budded four or six leaves, and contains three or four joints in the stem. It has also acquired an elasticity which resists the action of breaking that happens to those which are tender. They should then be brought into the place designed, and the shoot turned toward the earth, after which taking hold of its buds, very lightly for protection, by which I would save without danger the root which can penetrate only a little on account of the shoalness of the patch I have recommended, I would proceed collecting them with uniformity in the left arm, in the form of a bundle, which I would deposit in baskets kept for the purpose. I would do this early in the morning, suspending it when there is no dew, because moving them without dew would cause friction among the young leaves, thereby the epidermis of the beautiful plant becoming broken, exhaling balsamic odor and occasioning putrefaction, as much in those transplanted as those left, which attracts thousands of butterflies and other insects, which exterminate the seed plot. The dew prevents or repairs the chafing and keeps them fresh the rest of the day, enabling them to be sown in vigor. They should be kept in a place where the air circulates, carefully covering the root that they may not lose their juices by the delay, or laying in the sun. If there are many plants, it would be convenient to scatter them along the furrows, guarding the distances so that the planter can easily reach them. The distribution concluded, they should proceed with the operation of transplanting, at the medium distance of half a yard, (the Spanish yard differs a little from the American,) with which in the left hand I would designate the place where the plant should be placed, keeping always from the line which forms the guard spaces of the parallelogram, with the greatest uniformity. The planter should take the plant in the left hand, bracing all the leaves in the same direction, with which should be supported the roots and trunk; and with the right hand fingers joined like a shovel, I would excavate an oblique hole in the southern limit of the hill or furrow in which I would place the plant, and with both hands press the soil upon the roots, in order that they may adhere to it, endeavoring to let the top of the plant recline to the wall (hill) which will serve a temporary protection to the rays of the sun, and protect it from the wind in its tender state. If the ground has been soaked by rains, I would not press the soil down upon the roots at the time of transplanting, because it would cause a great torpor in their growth, preventing them from extracting the juices necessary to their increase, or it might be the ascending sap, through which avenues it communicates with the plant; moreover the said inappropriate pressure occasions a true strangulation, which impedes the circulation of this vital principal, which leads to debility and death. In such a case the roots should be only lightly covered, avoiding always any vacuum between them and the soil, because in it putrefaction would be elaborated, occasioned by want of communication in this hardness that the ground had ac-

quired by being used in this state, forming a barrier continued and impenetrable. I would suspend the planting in such cases until the following morning, when the ground should be drained. I would commence transplanting immediately after the plots begin to produce good plants, which will be from the middle of September at farthest, without attending to the pernicious customs springing from apathy and indolence. There are many proverbs among such labor, as "The season decides the time for sowing"—"When it begins to rain begin the year," and many other errors, which serve as pretexts to let the precious time pass away, and make not the least diligence to obtain the good that is to be. The best season is the epoch of the year, which nature defines for operations, and "heavy rains," "ebb tide," fabulous declines and other stories should not be obstacles to impede the rapid march that should attend so luxuriant a cultivation. In truth, when the young plant is ready, wait not for "shower," or "ebb tide," as the least delay in transplanting would occasion great loss. The system of improved or enriched furrows, free from inconveniences, being able to advance from the time the plant is ready, because in the bottom is found sufficient moisture preserved by the furrow or dyke placed there, with this intent, sufficient time before; with which abundance the transplanting can be moistened if the drought continue; which operation, I repeat, is necessary to be done early in the morning, for reasons above demonstrated. When the transplantings have been concluded, the plants commenced vegetating, and the first leaves appeared, is the time to brush or throw over the first dirt, which operation is commonly called covering. If the drought continues, I would soak four or six ditches of the first field, and continue to cover with dirt, which in the first operation was light, making it an object to aid the plant by placing it in a good direction. Every day this covering should be repeated in the same manner until done.

TO BE CONTINUED.

Pacific Glass Works.—This company was incorporated early in October, 1862. Officers:—President, Caleb S. Hobbs; Vice President, John Taylor; Secretary and Treasurer, John Archbald; Trustees for the first term, Caleb S. Hobbs, John Taylor, Robert Turner, Joseph S. Garwood, H. C. Hudson; Superintendent, Dr. —— Post. Capital Stock, $50,000—divided into fifty shares of $1,000 each. The company is fully organized, and have levied assessments amounting to about 25 per cent. on its Capital Stock, which is all paid in. It has purchased a tract of ten acres of land at the Potrero Nuevo, fronting on Mission Creek, and intend to run out a wharf to deep water, in front of their property. It has graded their lot, and has constructed a brick factory, 50 feet square, and is now building the stack. It has also built a mill house, 30 x 40 feet, and has supplies of fire clay and soda ash shipped, and on the way from New York. The Company intend to manufacture at present all kinds of hollow ware and wine bottles, to supply the demand for this great branch of industry in California, pickle bottles, pint bottles, spice bottles, and druggists' glassware, in all its variety. It is difficult to estimate the demand for this kind of ware in the State. It is reasonably supposed the facilities in getting supplies of all kinds of ware made here, will cause the demand to increase. Probably $100,000 to $125,000 is yearly imported to this State, that can be supplied by our home factory. They intend to commence operations in April, 1863. A few good glass hands, (in addition to what are here,) could probably find employment if arriving here from the East in April or May. The sand from North Beach is found excellently well adapted for the manufacture of this ware, as demonstrated by an experimentaburner put up by the Company on Greenwich Street.

Solano County.—The following comprise the statistics which show the result of the Assessor's investigations, of the above County, for 1862:—Acres of land enclosed, 360,582; in pasture, 277,564; cultivated, 82,828; in wheat, 32,388—bushels, 1,133,580; in barley, 4,048—bushels, 161,920; in oats, 500—bushels 25,600; in rye, 12—bushels 300; in corn, 20—600; in beans and peas, 50; in potatoes, 400—bushels, 40,000; in hay, 44,890—tons, 44,890; alfalfa, 30; broom corn, 10—value $600. There were produced 48,960 pounds of butter; do of cheese, 40,000; do of honey, 12,000; do of wool, 532,371; 15,000 dozen eggs, Of fruit trees, etc., 5,384 apple, 4,080 pear, 26,920 peach, 3,050 cherry, 2,100 quince, 3,746 fig, 20 olive, 890 almond, 1,000 gooseberry, 3,160 plum, 3,000 nectarine, 4,400 apricot, 10,000 strawberry, and 400,000 grape vines. Of live stock there are 5,573 horses, 328 mules, 12 asses, 3,278 cows, 2,200 calves, 14,480 stock and beef cattle, 101,404 sheep, 10,304 hogs—and 3,100 sheep, 1,200 hogs, and 2,450 cattle have been slaughtered. Of poultry there are 12,000 turkeys, 540 geese, (the Assessor must be mistaken! for we can see at least a million almost any day,) 10,870 ducks, 25,000 chickens, 240 bee hives. There are two grist mills, one steam power, with three run of stones, valued at $13,000. One waterpower, with two run of stones, valued at $2,000. Amount of grain ground in these mills, 77,887 bushe s.—*Solano County Herald.*

Rice.—About 25,000,000 pounds of rice are consumed annually on this coast, and the most of it is of foreign or Asiatic growth. Owing to the rebellion, very little has been received at this or any other port. Most of that sold here as Carolina rice, is of Asiatic origin, which, being repacked here in barrels, deceives most purchasers. Carolina rice is less nourishing than any other. In the fall of 1852 the first rice mill was erected in San Francisco, for Mr. Norton (now called the "Emperor"). The second mill was built in 1853 for Mr. Dunn and others. Since that time a number of rice mills have been erected, but only three are in working order, viz: the Flint Mill, at Greenwich Docks; the Oriental Mill, on Fremont Street, near Market, and the India Rice Mill, on Beale Street, near Market. The first two are idle. The India Mill is cleaning paddy from the Sandwich Islands. Till within the last year no rice was exported from the Sandwich Islands. The India Mill is now engaged in cleaning the last lot, by the bark *Comet*. Some 900,000 pounds have been received in San Francisco from there since the Sandwich Islands commenced its cultivation. It was all cleaned by the India Mill. This mill has now been running nearly a year, and during that time it has cleaned about 12,000,000 pounds.

Peanuts in California.—Some 10,000 pounds of peanuts were raised in Yolo and Sacramento counties during the last year; 8,000 pounds of which were purchased by a firm in this city. Had it not been for the flood there probably would have been over 20,000 pounds produced. The first lot of peanuts raised in this State, came into market about three years ago. Their cultivation has been so successful that it is probable the importation of them will entirely cease within the next two years. Dealers purchase them of the producers at 20 cents per pound, and wholesale them at 25 cents.

CALIFORNIA
WINE AND WOOL REGISTER.

"Festina Lente,"---Hasten Slowly.

SACRAMENTO, FEBRUARY 1863.

Existing Characters of California Wines.

In order to form some basis for estimating the future of the wine business on the N. W. Pacific coast, we determined to wait on the chief wine producers, or their agents, in San Francisco, and by personal inspection and interchange of opinion with the various parties, endeavor to obtain as accurate an opinion as our abilities will admit, of the prominent characteristics of the bulk of the wine as now produced in California, and subsequently to lay our observations and opinions before our readers, after having carefully deliberated upon and weighed the information so obtained. So far we have gone through the matter indiscriminately, it being by mere matter of chance the order in which the respective depots were taken. Some who were called upon will not receive attention in the current number, because their agents or managers did not feel themselves competent or justified, in the absense of their proprietors, in affording particulars in all the details sought; to such and others who have not been waited upon, we may freely observe that it is our intention to wait upon all extensively engaged in the business, and to accurately report the results, as we shall on this occasion do of the three establishments whose stocks were kindly opened to inspection, and to whom we tender our thanks for the readiness with which replies were accorded to all our queries. We hope the observations made during these perigrinations, and which we shall publish from time to time as we progress amongst the different stores, will prove generally useful, and which we think will at some future time be not without value as a historical fact or datum connected with the California wine business. Nearly four years has elapsed since we have had much opportunity of knowing from personal experience the character of California wine; at that time a really sound glass of California wine was the exception, an indifferent, or to speak truly, bad wine was the rule—young, cloudy and smacking of the sulphur match employed to arrest fermentation—was the general rule. Since that period our only knowledge of our wines of native growth, has been the casual glass obtained at a friend's house or in bar-rooms, and as even these opportunities during the time specified have not been frequent, we have come to the consideration with palates and feelings unprejudiced and dispassionate. If we make any errors, they will be those of judgment, not of intehtion.

The discussion and statements made at the Wine Grower's Convention, had prepared us for a very different state of things to that which we have ascertained to exist; we did not anticipate any improvement on our former experience. To our agreeable surprise, however, we found a most marked one in all that we examined, and we shall in the sequel show that the bulk of our white and red wines form a base which, with trifling changes in the manipulation and the judicious admixture of certain proportions of special varieties of grapes, by means of which our own wine producers may successfully compete, in a short time, not only in the home, but in the market of the world, with the wine merchants of Cette or the Rhine.

Our inspection commenced with the stores of Messrs. Kohler & Frohling, Montgomery Block. In the absence of Mr. K., Mr. Petersen obligingly accompanied us over the vaults, at the same time favoring us with descriptive accounts of the varied vintages, their qualities, specialities, etc., etc. We understood that the whole of these wines, with the exception of the Muscat, are made from the Mission, or as we have called it, the Beni Carlo grape, an opinion which, as we shall shortly show, was corroborated in the course of our inspection. The white wines of this establishment, and the same remark applies to other vineyards at Los Angeles, are made from the red grape. We tasted white wine, 1858, '59, '60, in wood; the '58 was of a rich, golden color, and 1856, white wine in bottles—this last very fine. The grades of improvement according to age, though not very broad, were perfectly marked and indicative of the character of a true, sound wine—the veritable juice of the grape—subsequent to fermentation, untouched by alcohol or fictitious aid; we may say also that this remark applies generally to all the California wines we have so far inspected or about to be described in this number. We were shown a 1859 port, and 1861 claret, made by this firm, respecting which we may observe that they were fair approximations; they may, however, be improved upon, and doubtless will. It becomes a question, however, and is one that we shall attempt to discuss in a future number, whether it is the true interest of the California wine grower to imitate noted foreign wines, or attempt to obtain a distinctive character for our native wines. Messrs. Kohler & Frohling have excellent Muscat and Angelica; as, however, we deem these rather as cordial than ordinary potable wines, we shall for the present dismiss their consideration.

At Messrs. Graves, Williams & Buckley's Pacific Fruit Market, we were shown, by Mr. Comins, who has charge of the cellar, a very fine, delicate white wine, vintage 1861, the produce of a vineyard belonging to Mr. J. Rowland, Los Angeles, and was certainly the most delicately flavored wine we met with in the course of the morning; from its general character, we suspect that it has been fermented at a lower temperature than is commonly the case with California wines; we thought also, and probably from the cause alluded to, that more of the saccarhine substance of the grape remains unchanged in this wine than usual, which in some manner accounted for its bland taste. Messrs. Graves, Williams and Buckley have also some wine from Hock Farm, well known as the residence of General Sutter, and on that account ought to possess something like a classic celebrity with Californians. We are not informed from what kind of grape this wine was made, nor do not suspect that the Mission grape partook in any large degree in its composition. The quality was sound and strong, adapted to German tastes, but would probably fail to please Americans, excepting such as may have had their palates accustomed to Rhenish wines and their somewhat austere flavor. General Sutter thinks so highly of it, that he has given this wine the title of "Ambrosia."

We may here briefly refer to a speciality which we believe is at no place carried to such an extent as by our neighbors at Oakland, and for whom Messrs. Graves, Williams and Buckley are the chief, if not the only agents, we allude to wine made from raspberries, blackberries, rhubarb, etc. The two last made by Mr. Woolsey, and the first by Captain Reed and Mr. Lusk. We were also shown some made by Mr. Cousins, that had been a voyage to the Sandwich Islands and back, that manifestly had been improved by its travels. These wines possess a vinous character, with the high flavor of the fruit employed, and for medicinal purposes, such as when the citric acid is more grateful to the stomach than the tartaric, may be found a more useful stimulant than that derived from the produced of the vine. As warm drinks, in cases of colds, it is probable also they would prove preferable. The rhubarb wine was particularly pleasant.

Our last call, up to the time of writing, was at the store of M. Kellar, at the basement of Russ House. In the absence of Mr. Kellar, every facility was afforded us by Mr. Gilson. The white wines of Mr. Kellar, like those before alluded to, are made from the Mission grape; they are full, sound and clear, and although generally not older than 1861, are well matured; some claret was shown to us decidedly better than much imported, and infinitely superior to the mass retailed by the hogshead and carboy amongst the French population, which Mr. Gilson informs us they would be willing to sell to dealers in wholesale quantities at a price below that at which claret of an inferior quality can be imported, respecting which we shall have more to state at a future opportunity. What, however, chiefly attracted our attention, was what was shown to us as port wine, but which at the first sip we unnesitatingly pronounced a superior and clear Beni Carlo, an opinion that was at once conceded to and coincided with by Mr. Mendel, who was fully acquainted with the fact of Beni Carlo wine being imported into Germany, when into Assmanshauser and other so-called red wines, just as at Peth the same wine is converted into Port, Claret, Bergundy, or anything the wine merchant or mixer chooses. What a farce, therefore, to import their mixtures at high prices, when we can have the pure article at less expense, or if mixtures are more palatable, let us mix our own. Mr. Kellar makes a very fine Vermouth.

This article will be continued until we have gone the rounds of all the large wine depots.

Cotton Seed.—We have received, through the kindness of the *Alta* office, and J. A. Magagnos, Esq., some seed of the "Tree Cotton," also, "North Carolina Cotton," which we will distribute free to all parties who may wish to try the same, on inclosure of address and stamp to pay postage.

A Good and Rare Opportunity.—A gentleman who owns some of the finest and highest priced French Merino rams in California, having more than is required for the service of his own flock, is willing to let them out for service to good wooled American or other suitable ewes, to be paid for by a division of the produce, to be agreed upon previously. Any parties desirous of such an arrangement, will learn more on application to the proprietor of the Wine and Wool Register.

Report of the Stock Raisers' Convention.

The Committee appointed by the Convention of Stock Raisers, now assembled in San Francisce, to recommend some plan for the relief of the stock-growing interests, beg leave to submit the following report:

From the most reliable information at their command, they find that there are at present fully one million eight hundred thousand (1,800,000) head of cattle in this State, whose annual increase will reach six hundred thousand (600,000), or 33⅓ per cent. The consumption. as near as can be ascertained, is four hundred thousand (400,000), leaving a surplus of two hundred thousand (200,000) per annum.

It is quite plain, then, that so long as this state of things continues to exist, there can be no possible hope of any improvement in the market.

The only remedy for this evil is the immediate reduction of the number of cattle on hand, which the Committee conceive may be brought about the coming season, and for the accomplishment of which they suggest the adoption of the following measures throughout the whole State, namely:

The establishing of Metauzas in the various counties for the purpose of slaughtering a certain (say thirty-three) per centage of all the brood cattle of the age of three (3) years, and upwards, for their hides and tallow, and such other portions of the bullock as may command a market.

Secondly, the spaying for two or three successive seasons an equal percentage of all brood stock under the age of three (3) years,—or what will bring the same result, the castration of all, or at least a very large portion, of the inferior bulls.

In regard to spaying young stock, the Committee desire to impress upon the minds of the Convention that a double advantage is to be gained. It materially assists in reducing the production of cattle and thereby causes the supply to be more in proportion to the demand, and enhances the value of the spayed stock at least fifty (50) per cent. The cost is but trifling, as it can be done at the time of branding, and the Committee fully agree with Mr. Jerom C. Davis, who has tried the experiment, that whoever spays ten head one season, will be certain to spay one hundred head the next.

These measures, if promptly adopted, will have the immediate effect of reducing the stock on hand to the proper quantity.

The Committee submit for the information of the Convention the following facts in relation to the slaughtering of cattle for ther hides and tallow:

Cattle should only be slaughtered when in best condition. Each bullock will yield, on an average, one hundred (100) lbs. of tallow, worth in this market 7 cts. per lb.....$7 00

Average weight of hides, 27 lbs., at 15 cts.....4 05

Tongue, dried beef, horns, and brush, say.....2 00

$13 05

Deduct expenses of slaughtering, packing, etc..... 2 50

Total nett.....$10 55

About 75 per cent. more than the rancheros realized for their beef cattle the past season, which is estimated not to have exceeded $6 per head.

But the Committee would suggest that there are better

markets than San Francisco. Capitalists would willingly advance sixty (60) per cent. on every dollar's worth of hides and tallow shipped to New York, England, or France, at the rate of seven (7) per cent, interest per annum.

The present price of hides in New York is twenty-eight cts. per lb., average weight of hides, twenty-seven lbs., at 28 cts. per. lb.	$7 56
One hundred lbs. tallow, at ten cts. per lb.	10 00
Horns each, 3 cts.	06
Brush	03
Tongue and dried beef, (each bullock)	2 00
	$19 65
Deduct cost of slaughtering, shipping expenses, etc.	7 85
Total amount realized	$11 80

Besides, there are portions of the beef that might be profitably salted, which always commands a ready market. These facts are deemed sufficient to show that slaughtering is the only disposition that can be made of the surplus cattle.

The Committee, then, would finally recommend, in order that these facts may be properly brought before those interested, that this Convention do adjourn to meet in this city on the 11th day of February, 1863, and that in the meantime the stock raisers of each county do meet and elect delegates to represent th ir interests at the next meeting of this Convention, when the question of forming a Joint Stock Company will be taken into consideration, for the purpose of establishing Metanzas in the different counties, the capital stock of which is to be subscribed by the rancheros in cattle.

H. G. CLAUDE, S. C. BRUCE,
JEROME C. DAVIS, A. P. MOORE,
C. P. MARSH, ABEL STEARNS,
Committee.

The Report was adopted, and the Convention then adjourned to meet at 12 o'clock, on Wednesday, February 11th, 1863, at the Russ House, in the city of San Francisco.

ABEL STEARNS, *President.*
F. E. KERLIN, *Secretary.*

FINANCIAL.

The past year has been remarkable for the greatest Financial disturbance which has occurred since the recognition of American Independence, nor would it be safe to predict that we have as yet witnessed its worst phase. That will chiefly depend upon the circumstance whether in future additional issues of Legal Tender Notes, or "greenbacks," as they are commonly called, will be authorized by the Secretary of the Treasury, if not, most probably the present issues will become so diffused and absorbed as gradually to abate the baneful influence which they have caused in cummercial transactions, owing to their great depreciation, at one time amounting to one-third of their face value. Hitherto California, owing to its adherence to a sound hard money system, has almost escaped unscathed, we say almost, because we are not without instances on this coast where old contracted debts have been liquidated by payment in greenbacks, which at least are depreciated here to the extent of fifteen per cent., though when compared with the current rates in New York, ought to be at a discount of twenty-five per cent. Our State Attorney has defended the greenbacks on the ground of a great State necessity, thus inferentially admitting that their issuance is unconstitutional, so far as being a legal tender is concerned.

Conceding to that Honorable gentleman that "necessitas non habe legm," and that the inconveniences of such a contest as that in which we are engaged might necessitate the call for any sacrifices on the part of loyal people, even to a forced loan, or the violently taking away horses, stock, or other material or property of private persons for the common weal or benefit, to be reimbursed at a subsequent period, we must confess that of the two evils we would prefer the latter as calculated eventually to prove the more economical, although we admit the process would be anything but agreeable or popular.

We are hopeful enough to believe that American credit, honor, and financial integrity and ability stands sufficiently high to obtain all the funds needed by way of loan, had sufficient inducement by way of interest been held out to such as had funds to spare, and it would have been far more economical to have paid even ten per cent. interest than experience the paralyzing effects on business caused by the existing fluctuations in the commercial value of greenbacks. These sentiments also appear to be in a great manner impressed on the mind of the President, if we construe aright his emphatic remarks made in the course of his late address, on the evils of an unredeemable paper currency. The telegraphic information recently conveyed to California, that Secretary Chase proposes to raise a loan of $900,000,000, is symptomatic also that this functionary has, though somewhat tardily, conceded the necessity of abating the evil which has tended so much to drive gold out of the country. So far, therefore, the prospect is cheering, and renders it probable that we shall soon get into the right track and cease to apprehend difficulties from an inundation of shin-plasters. This is the more desirable, because California, after going through several phases of excitement and depression, appears to have at length settled into a state of steady progress, and onward career of industry and wealth, such as has never been previously exhibited in the advance of civilization by a community composed of so few numbers. Grim want amongst the industriously useful is unknown. Permanent improvements, whether in city or country, were never during its history seen to advance so rapidly, and all this not the result of speculative excitement, but the consequences of the solid growth of wealth displaying itself in the laudable desire of securing greater comforts, and more extended means and facilities for the future production of wealth.

Let our friends steadily pursue a similar course a few years longer, and the American States and Territories on the Pacific coast will exhibit to the world such a growth of actual and relatively proportional wealth as its history has never yet recorded, especially if, as from some previous remarks we are led to infer, that we have already seen the most disastrous consequences likely to follow the unwise issuance of vast quantities of unredeemable paper currency. If this is not thrust into our way there will probably remain no other drawback to our onward prosperous career, unless those now occupied in their customary pursuits of production or commerce should be tempted to leave their well understood and beaten but safe tracks, for the more exciting but dangerous chances of real estate and mining speculations. We do not wish to be understood as discountenancing *investments* in either; what we are endeavoring

to inculcate is, the folly of outside persons drawing on their funds invested in paying occupations, for the purpose of making temporary purchases, time bargains, etc., in speculative property, of very fluctuating value.

It is of great importance that our mines shall be developed to the utmost possible extent commensurate with economy and profit. On the success of mining will chiefly depend reimbursing returns for agricultural productions, as their extension will form the most profitable market. Our good wishes, therefore, are most heartily accorded to the miner; we shall, therefore, each month, form a synoptical report of the past, and also, as far as possible, give information for the future, for which purpose we shall not fail each month to insert an item under the caption of Mining.

Just as the preceding hopeful remarks had been penned, information was received over the wires to the effect that notwithstanding the very emphatic condemnation contained in the President's Message, of flooding the country with inconvertible shin-plasters, it is the intention of the Secretary of the Treasury to issue $200,000,000 of additional greenbacks, which, with those already issued, and combined with the small postage currency issue, it is said, will make a grand total issues of $570,000,000, an amount sufficient to break down the financial status of any country, and must necessarily throw paper money to a discount of at least 50 per cent. on its face value, and by so much increase the cost of the war to that amount at least on all future contracts for material, commissariat, transport or other supply. Far better and cheaper would it have been to have offered a 10 per cent. loan, redeemable in three or four years. For it should ever be borne in mind that under existing circumstances it will take $150,000,000 in greenbacks, at least, to purchase what would be easily attainable for $100,000,000 if paid in gold, and the day will arrive when the greenbacks will have to be paid in gold. The step proposed by Mr. Chase, we think, would scarcely be adopted were it not that the pressing exigencies of demands on the Treasury for contracts completed, have become so urgent that the worthy Secretary has no time to seek aid in any other way than that proposed. A negotiation for a loan so large as that which has been hinted at, namely, $300,000,000 for the past, and $600,000,000 for the forthcoming financial year, or a total of $900,000,000, it would be impossible to raise in any moderate period of time, especially with the prospect of continued issuances of enormous and unlimited amounts of inconvertible shin-plasters looming in the future. It is with pain we pen these remarks, but a sense of duty compels us to make them, in order to warn our readers of the financial pit-falls, rocks and eddies into which they may inadvertantly fall. It is true that so far, owing to the stern manner in which the members of our community engaged in commerce, trade and finance, have so stedfastly stood by the hard-money test wisely inserted in the Constitution of California, and which also forms an integral part of the Constitution of the United States.

We should not, in this number, have entered so largely on this subject, had it not been that our Supreme Court, by its decision in the case sent up to it about the payment of State taxes in greenbacks, inferentially led to the conclusion that had the test case been one relating to ordinary debt, that they would have decided on the legality of the tender, in spite of the fact that the power delegated to Congress only relates to the coining of money, and at the time that the United States Constitution was made, no lexicographer ever applied the term coin as meaning other than stamping metals. Shakspeare and others have used the term coin in a metaphorical sense as "the coin of the brain," but such would not be sufficient to justify Congress in issuing inconvertible shinplasters to such an extent as to lessen the obligations of debtors to creditors, to the extent of 50 per cent., and that too in the short space of twelve months. An injudicious friend may do a greater injury to a cause than the most energetic and talented enemy, and if there is one cloud blacker than another, which threatens more than any other matter to prove destructive to Federal interests, it is the rapid depreciation of our currency.

Every per cent. which such depreciation may increase, will give additional energy to money changers to foist the shin-plasters upon us, and we have already given sufficient cause for believing that on an appeal to our Supreme Court, the decision will be favorable to the money-changers, if so, trade will become paralyzed, credit will be dead, and we shall all but be reduced to a state of barter, for what man will make a contract, written or verbal, if he feels that the real value agreed upon can be liquidated in shin-plasters of at least 50 per cent. depreciated value. The press of the State has been negligent in not sufficiently warning the public of the hazards they may probably incur, owing to the incertitude which hovers over this important matter, which proportionably effects the millionaire and the working man.

The history of modern civilization has given repeated proofs that no injury ever occurs to a country so disastrous and so difficultly to recover from as those occasioned by a deranged or depreciated currency. California, so far, has escaped pretty well, but a dishonest man can at any time compel a debt to be received in paper at least 20 per cent. below its face value, or compel the creditor to enter upon a hazardous law-suit, where he may lose the whole. Little of these smart actions have hitherto occurred, but we do not know how soon they may become common.

We are affraid that the Secretary of the Treasury bases some of his operations on the report of the Commissioner of the General Land Office, respecting the fabulous amounts that may be obtained by taxing mineral grounds. There is a saying that contains a great amount of truth, namely, that no romance ever came up to the reality of life. Nor have we ever witnessed so Munchausen a story as that forming a State document, and put forth from our Land Office. Sinbad's valley of rubies, diamonds, emeralds, etc., was placed in an inaccessible location, and these priceless gems were only attainable by the precarious mode of throwing into it lumps of meat with the object that some of the gems would adhere thereto and be carried off by birds of prey, which anxious watchers were on the look out to chase and frighten so as to cause these birds to leave their carrion and the coveted gems that might be attached to it. Does the Commissioner think, or will he be capable of inducing the Executive to believe that it is only requisite to take a pick a shovel in order to delve out the imaginary wealth which has so dazzled his vision. In like manner are the sources of the precious metals surrounded with difficulties, to which, in some measure, it is to be attributed their scarcity and value. Let the history of the past three years at Washoe serve as a lesson to him. If an estimate was made of all the capital expended at Washoe in previously accumulated hard cash, and estimate each day-laborer at two dollars per day, it would be found that the profits that have heretofore resulted from Washoe, Esmeralda, Coso, etc., etc., would not yield a rate of interest equal to two per cent. per annum on the outlay.

[We regret to find that since the above was written the Secretary of the Treasury has announced his intention to issue another large amount of greenbacks, in consequence of which gold has risen to nearly fifty per cent. premium in New York, and greenbacks have fallen to a discount of 25 per cent. in California. Our readers will please to excuse the length of this article, and is only excusable on the ground that every man's property is at stake, the Twelfth District Court having decided in favor of greenbacks as a tender. Rumor prevailed that the Supreme Court of New York had decided against their legality as such, and that it was probable this opinion would be confirmed by the Supreme Court of the U. S.]

PURE MILK.—We can only briefly draw the attention of our San Francisco readers to the advertisement of Messrs. Bateman & Taylor, in which will be found the details which those gentlemen have arranged with the object of serving families and others with pure and unadulterated milk, so as not to be incommoded by the carelessness or want of domestic attendants.

MINING.

"Hasten slowly," is an adage that will apply remarkably well to mining as well as to several of the specialties which the WINE AND WOOL REGISTER more especially proposes to treat. To a cool operator, somewhat acquainted with mining and the operations required to convert their produce, when sufficiently productive in quantity and quality, into bullion, the blundering and mysterious management that has to a very recent period obtained amongst all the mines in Nevada Territory, but which has been most remarkably exemplified in the conduct of two or three of the most celebrated must appear surprising. Of the whole of the upwards of 200 mining incorporations established during the last three years, we believe we are correct in saying that only one or two has paid any dividend, and another is about to do so. It is just, however, that in each of the two cases just alluded to large sums, realized by the sale or treatment of ores, have been invested in permanent and necessary improvements, which in both cases were too tardily entered upon for the interests of the stockholders. Had this been otherwise, and the management of these concerns been in the first instance placed under the care of competent parties, there can be no doubt that what between the saving of extravagant, useless and more than useless expenditure, absurd attempts at tom-fooleries and pseudo discoveries, and the investmentment of the same according to a system based on what is already known which would extract the whole of the silver, including the value of that not extracted at a cost from the arrival of the ores at surface to the conversion of the bullion into bars, at a cost not exceeding twenty dollars per ton, the stockholders are ont of pocket not less than one million and a half of dollars. The ignorant, go a-head system has resulted as disastrousiy almost as the "hasten slowly" one would have been beneficial. A rich mine, however, covers all blunders with the unthinking. We could not, even if we "drew on our imagination for our facts," by any possibility, have depicted such a ridiculous, unmethodical, reckless mismanagement as can be traced through the entire course of conducting mines since the discoveries at Washoe, in 18 9 Notwithstanding three years have elapsed since these discoveries, we believe only one mine has paid a decent dividend, and in place of progressing in metallurgic ability during the period that has elapsed, according to the showing recently made by a well known company, we should infer that the movement has been a retrograde one. Although furnished by the company in question with a copy of their report, we have been prohibited from publishing the Dr. and Cr. account therein furnished. In this, we think the managers of the company err, because there is nothing in that statement other than creditable, so far as the conducting of their money accounts is concerned, and if it displays items for critical remark where by it can be indicated that future savings can be made, we do not see that any party will derive so much benefit from criticism as the company itself.

We find from the report alluded to that an average of 8,427 tons of ore, mostly of the third class, has yielded $881,190 68, averaging $104 50 per ton. The cost of the extraction of the precious metals is set down at $324,889 39, or at the rate, in round numbers, of $40 per ton. Add to this the $15 worth that is not extracted and the total cost really amounts to $55 per ton, the whole of which could be accomplished by an intelligent metallurgist for $20 per ton. Assuming, however, that the profit made by mill owners, and the saving that will probably be effected when these companies own reduction works, are put into operation, will reduce the cost to say $25 per ton, plus 15 per cent. not extracted. This would be equal to $40 per ton, or twice the amount it ought to cost. A difference in the quantity extracted during the past year, which would make a total on the income of the company of $168.540, an item worth looking after.* If we wanted further information respecting the gross ignorance of metallurgic matters of those having charge of this company's works at Washoe, it may be derived from the following paragraph in the body of the report, which states: "There has been shipped during the past summer, to England 15¼ tons of first class ore, as an experiment, at an estimated value of $1,200 per ton. Returns for the same have not been received; but advices state that the first shipment of 95 bags yielded $1,420 per ton; and should the mine supply much of this class, it without doubt will be more profitable for the company to ship the same, than attempt to reduce it at Nevada Territory." The above quotation is about as naive a confession of ignorance as it ever was our lot to witness. In the first place, it would appear that in a matter so commonly understood that in Germany, France and England the situation is usually filled by an ordinary but steady working man, namely: that ff assaying the ore a difference so great as $220 per ton in the estimated value of ore is made by officials at Washoe, and it is gravely recommended by the Chairman that such valuable ore it would be cheaper to send to England for reduction rather than effect the same at Washoe, though the cost of such transmission and other charges cannot be less than $100 per ton, an amount of self-acknowledged ignorance that would be incredible had it not been plainly acknowl dged by the parties who ought to feel ashamed of such a state of affairs.

The truth is, neither Chairmen, Secretaries nor Trustees have sought for the right kind of ability to superintend their mines and reduction works. Nigger driving and stevedore qualities rather than high scientific talent, of the class specially required, combined with comprehensive mercantile ability which were the specialties requisite. Nigger driving could be done by subordinate agents, and are obtainable as plentiful as blackberries, indeed in profusion as great as the needed ability is scarce.

* Since the preceding was written, an extract from an annual report of the Ophir Company has been handed to us, and exhibits a similar state of fatuous incompetency.

POULTRY.

Under this caption it is our intention to notice the breeding, management and diseases of the various species of our domestic poultry—a subject which, although oftimes of small importance on a large farm, yet in the aggregate, forms an important item in the commercial line, and contributes largely towards the enjoyments and luxuries of life, over and above its absolute value as a source of food. The diseases of our domestic poultry have for a long time been a source of great loss and mystery. After more than three years careful attention to the subject, we have somewhat satisfied ourselves that one of two, but oftentimes both causes about to be alluded to, are the attendants of the disease found so uncommonly destructive to poultry in California. In the first place we have generally found that poultry suddenly take unwell, and subsequently die, in consequence of an enlarged liver, accompanied by a highly inflamed skin, and dysentery—the two latter especially being the case if the disease occurs.

Simultaneous with the moulting season—in fact it becomes an important question whether the primary cause of the extensive mortality amongst poultry in California does not take its origin, owing to inflammation and colds the consequences of moulting, or in some way connected therewith. We invite attention and correspondence on this interesting subject, which is well worthy of receiving the attention o the medical profession. Comparative anatomy has long been a recognized study, and we conceive that public benefit might be derived from the study of comparative pathology and physiology.

Cotton and Wool.

INTERESTING REPORT TO THE SECRETARY OF THE NAVY, BY COMMANDER BISSELL.

Should the war continue for some time to come one of the most important subjects for consideration will be the production and manufacture of material for clothing. The increased demand for both cotton and woolen fabrics, together with their greatly enhanced prices, long since attracted the attention of the Government, and the subjoined communication from the Hon. Secretary of the Navy to Commissioners Newton, of the Department of Agriculture, accompanied by the reports of Commander T. B. Bissell, of the United States ship *Cyane*, details his success in purchasing a pair of Vicunas (Peruvian), rare and very valuable, producing wool of exquisite texture. Commander Bissell has also obtained a pair of Llamas and Alpacas. All these are to be experimented upon in California. The whole report is most interesting and appropriate at this time.

NAVY DEPARTMENT, Nov. 6, 1862—Sir.—I transmit herewith, for such disposition as you may deem proper, a box containing specimens of Vicuna, Llama and Alpaca wool. Also, samples of cotton, from Peru, with copy of communication explanatory of same, received by this Department from Commander T. B. Bissell, United States Navy.

Very respectfully, GIDEON WELLES,
Secretary of the Navy.

Isaac Newton, Esq., Commander of Department of Agriculture, Washington.

U. S. SHIP "CYANE," CALLAO, PERU, October 9th, 1862. —Hon. GIDEON WELLES, Secretary of the Navy, Washington, D. C.:—Sir—I have the honor to send you the enclosed description of Alpaca wool, exhibited at the Fair in London, of 1862. The valne of the wool in future, to Australia, fully sustains my opinion of its importance to the United States. The importation I am making includes the Vicuna, by far the most valuable of these animals, none of which have been before taken out of the country for the object which I have in view.

Those I have now on board the *Cyane* bear their confinement well, and are lively and docile.

I am, sir, very respectfully, your obedient servant,
(Signed) S. B. BISSELL, Commander.

UNITED STATES SHIP "CYANE," CHINCHA ISLANDS, September 16th, 1862.—Hon. GIDEON WELLES, Secretary of the Navy, Washington, D. C.—Sir:—I have the honor to report that at Pisco I had the great good fortune to purchase (through a friend long resident in Peru,) two of those invaluable animals, the Peruvian Vicuna. The exquisite fineness of the fleece of this useful animal and its hardy character and admirable adaptation to any of the Middle and Northern States; the small quantity of food they require, living as they do in the frozen and mountainous regions of Peru and Bolivia, and thriving equally well in the temperate climates, peculiarly fits them for breeding in California, where, from their capacity to go without water for days and weeks, the occasional long droughts of that State will produce no injury to them.

I am fully persuaded that crossing the Vicuna with the Merino and Saxon sheep will produce wool far superior to any now in our country or in Europe, both in fineness and texture, as the Vicuna's fleece is short and light, the animal being very delicate in form; the exceeding high price of this wool in England, nearly or quite, I am informed, four dollars per pound, richly compensated for the want of weight, four or five pounds being a large fleece.

I have obtained through the same friend a pair of Llamas, very noble animals, and a pair of Alpacas, equally fine. I intend all of these for an experiment in California. They all belong to the same class of animals and are equally adapted for raising in the same latitudes. If I am not disappointed in the estimate I have made of California for this experiment, a few years of judicious management with the pure blood, crossing with the Merino and Saxon, will stock that State with a growth of wool, the value of which will far exceed any estimate that can now be made.

The extreme difficulty of getting the Vicuna and Alpacas out of the country, both being strictly prohibited from exportation under a heavy penalty, has hitherto defeated all attempts of private individuals to send them abroad, except in the instance of Mr. Ledyard, an Englishman, who spent three years in Bolivia in collecting Alpacas, and after almost incredible hardships, dangers and unparalleled difficulties, and at a very great expense—having them all to transport across the desert of Atacuma, a distance of one hundred leagues, on the backs of mules—succeeded in getting three or four hundred on board a ship he had hired upon the coast, and took the greater part of them to Australia in 1857; a recent report, which I will endeavor to obtain, says the experiment is proving a great success, both in breeding the animals and improving the quality of the wool.

He found it impossible to obtain the Vicuna under the stimulating influence of the heavy premiums offered by the English colonial Government. Ten thousand pounds was given him by Sydney, and twenty thousand pounds by Melbourne, in consideration of the benefits conferred upon Australia by the introduction of the Alpaca.

The Vicuna has never been sent abroad, its wool being worth one hundred per cent. more in England than the Alpaca, so much superior is it in quality, as you will see by the enclosed samples, taken from the animals now on board the *Cyane*.

My residence at Mare Island, of nearly two years, in command of the *Independence*, prior to being ordered to this ship, has made me perfectly familiar with its advantages for successfully testing the experiment of breeding and improving these animals in California. There are some five hundred acres of excellent pasture land, covered with a luxuriant growth of wild oats, upon that island, just outside of the Navy Yard, where the horses, oxen, and mules that belong the Yard are pastured. The companionship of all these animals forms an essential element in taming and domesticating the llama, vicuna, and alpaca.

The security which the island offers, from the absence of all wild animals, such as the coyote fox, and of vicious dogs to disturb or destroy the old or young, makes it peculiarly fitted to rear or breed these animals, until their increase and value has been fairly tested; then I will take steps to have them distributed throughout the country, as the most experienced wool-growers in California may direct. In view of the great importance of this experiment, and if successful, its untold value in the future, I respectfully ask that you will direct the commanding officer at Mare Island to place these animals in charge of the man who has the care of the Government stock at the Yard.

This cannot involve the least expense to the Government, and will seem the best posstble mode of insuring success to this attempt of mine to greatly benefit not only California, but the entire country, which is so deeply interested in this branch of national wealth; an opportunity not possessed by another country, and one in which we can take the start of the world in the superiority of our wool in future. Should the success which I confidently anticipate, attend this effort of mine, I shall have the proud consciousness of having conferred a benefit upon my country and earned a fame far dearer than all the laurels that have crowned the brows of Cæsar or Napoleon.

With the earnest hope that my views on this subject may meet wtth your approval. I am, sir, very respectfully, your obedient servant,

(Signed) S. B. BISSELL, Commander.

—*Philadelphia Enquirer.*

☞ Our aim is to supply our readers with a first-class Journal, and at a price within the reach of all, who take any interest in the developement of the resources of the Pacific Coast. And though the expense of paper is materially increased, we hope with the kind aid and encouragement of our friends, to even be able to enlarge the size of our next number, without any advance in price.

THE OCCIDENTAL HOTEL.—In the current number we have only space to state that this mammoth Hotel is now opened under the management of the Messrs. Leland, late of the Metropolitan, New York. A more formal description we must defer to the next number; at present we can only observe that it is furnished and fitted up with every requisite for comfort and luxury, in exquisite taste and elaborate finish in every detail.

PAUVRETTE.—This great sensation drama is one of Dion Bourcicault's grandest productions, and was first performed in New York in 1858, when it had an unprecedented run of upwards of five months. It will be produced at the Eureka theatre on Monday next, in a style of magnificence rarely equalled in this country. The scenery, which will be entirely new, is by A. & F. Torning. The mechanical effects include the startling avalanche in the third act, by E. J. Cole and assistants. The cast of characters is as follows: Pauvrette, Mrs. W. H. Leighton; Marie, Miss L. Mowbray; Duchess de Beauliea, Mrs. Burrill; Therese, Mrs. G. E. Locke; Count Maurice, C. R. Thorne, Jr.; Bernard, Frank Mayo; Michel, A. R. Phelps; Martin, W. Stephenson. We bespeak for this piece as long and successful a run as was enjoyed by the Romance of a Poor Young Man, which is to be withdrawn only to make room for this great novelty.

TRUTH may be smothered, but it cannot die; it may bo disguised, but it will be known; it may be suppressed, but it will triumph.

We would call the attention of Wool Growers especially, to the card of Messrs. Farish & Co., in our advertising columns.

Those who desire to enjoy the fine weather, by a delightful drive to the Ocean House, or the country, will find their wants fully supplied by calling on our friends Fuller & Crittenden, Bush Street, near the Occidental.

TO CORRESPONDENTS.—We have received several important articles on Tobacco Growing. Also, a valuable article on the "Culture of the Chinese Sugar Cane," No. 1 of the Series—all too late for this number, but will appear in our next.

TOBACCO SEED.—We are able to furnish any and all subscribers, with Virginia Tobacco, and Connecticut Spanish Seed Leaf, *free of charge*, on sending their address to the Publisher.

R. B. FORDHAM,

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☞ FOR CASH ONLY! ☜

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CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SAN FRANCISCO: MARCH, 1863. NUMBER 3.

Cotton Culture—No. 1.

[PRELIMINARY.]

ON no occasion in the history of the world has its attention at any one time been so absorbed on the growth of a single article, as at this moment it is concentrated on that of cotton culture. It is entirely correct to state that the whole civilized world, and a great part of the uncivilized, has a large portion of its thoughts or energies devoted to the subject. Such an all-absorbing amount of interest all but universally spread, would alone justify the apportionment of a more than ordinary amount of space to the subject; when, however, there is added thereto a great local interest, we feel assured that our readers will be pleased to find that it is our intention to devote sufficient space to the subject, so that the question of its culture in California shall be presented to them in such a fair shape that every reader may be able to judge for himself whether its culture is suitable to his position, and also to form a tolerably fair estimate whether the domestic consumption will in future years form an adequate market for the produce, should the cultivation of cotton be vigorously entered upon in this State.

At the outset, we gave it as our opinion, after carefully viewing the subject under all its phases, that the culture of cotton for exportation, under a normal position of affairs, will not adequately remunerate the California grower, but should the present abnormal condition of affairs continue, that it would pay enormously; as the duration of this abnormal state of affairs is uncertain, and for ourselves we must admit that we see no data on which to form any safe conclusion as to its probable length or discontinuance, we must leave its estimation in the hands of the reader, for to us the future looms amidst the dark and inscrutable. Not so, however, the question of our domestic consumption; on that phase of the subject, we have certain reliable data to base calculations, which, although it is not our intention to reduce to figures in the present publication, owing to the fact that the annual statistics relating thereto will not have been made up until this has been placed in type; this wide-known fact may, however, be alluded to, as significant of its importance to the agricultural interest, both directly and indirectly; we allude to the scarcity and high price of grain sacks during the current season. Add to this the lately enhanced value of the slenderest piece of additional calico purchased for the use of any household, and it becomes by no means difficult to estimate the importance of the question under consideration.

VARIETIES.

Commercial cotton is a vegetable down of great softness, composed of exquisitely fine fibers, and is a product indigenous to all intertropical regions not removed far above the

level of the sea, but is grown for commercial purposes very largely at from ten to twelve degrees in the extra tropical regions immediately adjoining thereto, both in the northern and southern hemisphere, and has been and can be cultivated seven or eight degrees nearer to the poles. The earlier frosts in the Eastern States, as compared with California, will most probably drive their line of probable cultivation further South than would be found to be the case on the North Pacific Coast, making it not improbable that the northern parallel for the successful growth of cotton on this coast would not much vary from a line drawn eastward through San Francisco.

Linnæus has subdivided the cotton plant into four species: 1, *Gyssypium Herbaceum*; 2, *Garboretum*; 3, *G. Hirsutum*; 4, *G. Religiosum*; 5, *G. Barbadense.*

Others have subdivided the *Gyssypium* into four species; but for practical purposes it is sufficient to divide it into three classes, the varieties of which are exceedingly numerous, respecting which the most widely diffused need at present only be alluded to, namely: *Herbaceum* Cotton, *Shrub* Cotton, and *Tree* Cotton; of these the most useful is the *Herbaceous* variety, chiefly cultivated in the United States, the East Indies and South America. It grows from two to four feet in hight, is possessed of a rich foliage, its fibrous, enveloped seed being preceded by flowers of a white or pale yellow color, somewhat similar in appearance to that of the convolvulus. As the flowers fade, the pods or capsules form, growing to the size of a small walnut, which expands and eventually bursts as it ripens and exposes its snow-white fibers to the picker. The most remarkable variety of cotton, as exhibiting in an eminent degree the combined efforts of careful culture in a congenial climate and soil, is that of the Sea Island—the original seed of which was introduced into South Carolina, from the Bahamas, in 1786, which is said, however, to have been derived from the contiguous West India Islands. It may be further stated, that many years ago, although we cannot find the statement corroborated by any works of reference in our possession, we were assured that the original seed was obtained by the West Indies from the Isle of Bourbon in the Indian Ocean As will be shown hereafter, the climate of each of the places named was well calculated to develop the valuable qualities of the cotton fiber. Notwithstanding the great care which has been taken to extend the cultivation of the Sea Island Cotton, so much does its quality depend upon climate and soil, that the quantity grown has not perceptibly increased during the last half century.

Though the Sea Island variety is always considered at the present day to be the special growth of South Carolina, it is reported that the seed was first grown on the seaboard of Georgia—the cotton derived from the coast of that State still holding a high standard in the market. From the seaboard its cultivation was, on account of its celebrity, attempted on the uplands of that State, where it was found to degenerate, yet yielded a highly useful quality, one more in demand than any other kind, and soon acquired distinctive appellations in the market by which they are known to the present day, namely, "Bowed Georgia," and "Uplands."

[COMMUNICATED.]

Culture of the Chinese Sugar Cane.--No. 1.

There is no subject connected with agriculture that now needs the "line upon line," etc., more than the culture and manufacture of sorghum, or Chinese sugar-cane, and having had considerable experience in this State and elsewhere, in cultivating it myself and boiling it for others, I beg leave to submit the following:

SELECTION OF SOIL.

Upon this topic there is little difference of opinion, the various soils yielding such different results as to demonstrate its necessities. All experience in vegetable productions has tolerably well established the fact that uplands of rather a dry nature will produce the heaviest grain, and also vegetation the richest in saccharine properties, either of fluids, grasses or vegetables. Hence, we conclude that *rich sandy upland* is the best soil for cane. Upon this soil we may grow the cane more purely and profitably. I think the most applicable term would be *good wheat land.* The poorest soil for cane is the first bottom. or deep black soil, what would be called good corn ground. Black bottom-land soil is the least adapted to growing a rich cane, though it will produce a great growth of watery stalks, in which the juice

will be extra-charged with the peculiar acid of the cane. A warm, chocolate-colored second bottom—such as would be right for sweet potatoes—will yield a large growth of cane and a tolerably good quality of juice for syrup.

PREPARATION OF THE GROUND.

Too much care cannot be given to the proper preparation of the ground. The early growth largely depends on the condition of the soil. The plant in its early stages being very feeble, for this reason the surface should be very finely pulverized. Whatever the soil chosen, it should be in good heart and not need a heavy dressing of manure. If any be given, it should be a well-rotted compost, thoroughly worked into the soil. A compost of super-phosphate of lime would be an excellent preparation for this crop, as this ingredient would tend to counteract the acid of the cane. Many think an occasional sprinkling around the roots with lime-water of great service, the lime being taken up and the acids neutralized thereby.

PREPARATION OF THE SEED.

The seed should be short, plump, glistening, black and cracked open at the tip, showing the pinky color of the inner coat. Seeds which are longish, dull, black or brown and clear at the tip, are either degenerated, hybridized with broom-corn, or are unripe. As in all plants, some seeds will produce better stalks than others, so it is with the sugar-cane; and as, in gathering the seed, the whole head is taken, there will be a considerable portion unfit for growth. By pouring the seed into water, the very best seeds will sink, and the lighter will float and may be taken off. There will be other unhealthy seeds which can only be got rid of by the process of thinning out after the plants begin to show their character in the field. If the seed was all equally good, and the planter would take time to be particular in the planting, one quart of seed would be enough for an acre of land, but it is best to put in double the quantity, and pull out the sickly and superfluous plants in the time of hoeing.

In consequence of the hard shell of the seed, it should always be helped to break its coat by a previous soaking of some sort. The following method is as much practiced as any, and brings the cane plants up in three or four days: Take the quantity of seed you wish to plant in *any one day*, and place it in a bucket or tub; take boiling water and pour over the seed until it swims; stir all the time, that the seed may be equally heated; allow it to remain in this water for *one-and-a-half* minutes, then cool down by adding enough cold water to reduce it to a lukewarm state; roll it in plaster, if it can be had, as that will closely embrace the seed and form a manure for the first tender rootlets which put forth.

DRILLING OR HILLING.

Most people prefer drilling for the following reasons: More can be raised on the same ground without interference; when drilled it is far more easily stripped, each stalk standing by itself, and also more economically harvested. Having the field all harrrowed fine and level, make out the rows *north and south*, three-and-a-half feet apart, and have a stalk every two or three inches. If the soil is fine, it should not be covered more than half an inch. If planting largely is intended, a garden seed-drill, adapted to the various kinds of seed, would save both time and labor. In planting with a drill, care must be taken that the seeds are not deposited too deep, or they will rot.

We will follow this article, in a future number, upon Cultivation, Suckering, Harvesting, &c.

A Paper on the Alpaca, Llama, &c.

[Read by T. Rowlandson, at the Meeting of the California Academy of Science, held Monday, 2d March, 1863.]

Commander Bissell, of the U. S. sloop-of-war Cyane, having given to the author of this paper some specimens of the wool of these animals, with the object of adding them to the Museum of the California Academy of Science, now takes the opportunity of doing so. The Llama has long been known to students of natural history—the earliest explorers of Peru having made mention of their docility and great powers of endurance under heavy burthens, as compared with their size, namely, a capability of carrying a load 125 pounds fifteen miles per day, over rocky, precipitous, ice and snow-clad tracks, where a mule would perish for want of sustenance. All the varieties of the Llama species can sustain themselves with food on which mules would perish. These properties may render it an interesting question whether the Llama would not become an important assistant in developing the mines that are so numerous on our elevated Sierras. The Vicuña and Guanaco have also been mentioned by explorers. The former is best known to California by the Peruvian hats made from their silk-like coating, a small specimen of which I now produce. Commander Bissell has brought two of these animals.

The Alpaca was scarcely noticed until about thirty

years ago, when a few bales of its wool were sent to Messrs. Joseph Hegan & Co., of Liverpool, who at once went largely into its importation, and being a firm of princely pecuniary means, the importation of Alpaca wool immediately assumed a most important magnitude. Mr. Titus Salt was the first that devoted his exclusive attention to the perfection of its manufacture, some of which alone, or mixed with silk, form the chastest, enduring and elegant dresses in the world. The great market for this particular variety of fabric is South America, where the Señoras and Señoritas give a preference to it over all the species of silk or other silk mixtures for female clothing. Since the first introduction of Alpaca wool for the manufacture of a textile fabric, a race has taken place between the producer and manufacturer, in which, from the gradually increasing price of the raw article, it would appear that the manufacturer is gaining ground, and renders it therefore the more desirable that the raising of these animals should be vigorously set about; the other great inducements being their freedom from diseases incident to the ovine race—greater hardihood, uncommon docility, being readily made into pets, and producing a comparatively heavier fleece, namely from 8 to 12 lbs. each, worth, according to color and fineness, from seventy-five cents to one dollar per lb. The meat is said to be good, and the hide tans into a superior leather for harness purposes.

According to the classification of the best naturalists the Alpaca-Llama and their congeners belong more to the camel than the goat or sheep, for although the hoofs of the South American animal are cloven, the same soft, pad-like character found in the Eastern camel is perceived on the hinder part of the hoofs of the South American variety, whilst the fore parts of the feet in the latter terminate in hard, talon-like curves, which are exceedingly useful to the Llama species in climbing abrupt rocky acclivities which a mule would not attempt, and where a goat would fail. In the resemblance between the camel and the Llama tribe which have been enumerated, it has also been asserted that the digestive and masticatory organs have a considerable affinity to each other. I have introduced these remarks with the special object of drawing the attention of any of the members of this Society who are better versed in natural history than myself, to the importance of ascertaining whether the Llama tribe is really more allied to the camel than to the goat or sheep, or not, for a considerable economic question is involved in its solution.

Commander Bissell asserts, on the authority of Mr. ———, who has introduced the Alpaca into Australia, that it will hold commerce with sheep of the opposite sex, and that the produce of such connexions is an animal that (not only as is usual in such intermixed cases) participates of a mixed character, having more or less the features of both parents, but also that the produce not only procreate amongst themselves, but *are fertile, also.* If this is true, according to the rules laid down for characterizing species, it would prove that the Llama and the sheep belong to the same species. If the facts are as represented, on information by Commander Bissell, the way would be greatly cleared for the rapid improvement of our mean sheep of Mexican and old California blood, some of whose fleeces in the southern counties don't pay for more than the expenses of shearing; it would otherwise lay open a most extended field of general improvement, to particularize which at the present moment would occupy too much time. The *mode* of copulating by these animals is peculiar, and would require the assistance of an expert when it is intended to fecundate ewes. This difficulty has, however, by the foresight of Commander Bissell, been obviated, as a properly qualified attendant will be at Mare Island to give the requisite assistance to such animals as may be sent there (after a preliminary arrangement) for this purpose. The Alpaca will remain some time at Mare Island for this object. Commander Bissell expects to have a female Alpaca forwarded to him, the one which he brought away having died on the voyage. In the absence of a female there is not, therefore, any mode of securing the praiseworthy efforts of Commander Bissell to introduce these animals but by attempting to obtain a cross between the Alpaca and our best wooled sheep. The thanks of California are due to Commander Bissell for his patriotic efforts in introducing these animals to the Golden State; the difficulties in doing so may be in some degree estimated from the fact that for some years the exportation of living Alpacas has been prohibited by the Peruvian Government.

Commander Bissell particularly desired me to state that the Alpacas prefer the wild oats of California to the alfalfa, which forms so large a part of its native food; this, however, is not surprising, as few pasture or forage plants are more palatable to stock generally than the wild oat. I may further remark that in the Breadalbane highlands the Alpaca has more than kept its own amongst the native black-faced sheep of that district, and had done so for five

years, the Alpaca having been domesticated on the Marquis of Breadalbane's estate over that period prior to my seeing it in perfect health in the year 1854. There cannot be a doubt of its being reared with success in California if even only indifferent attention is paid to the subject.

A discussion afterwards took place in which those best versed in natural history, hesitated to give adhesion to the opinion that the progeny of Alpacas with sheep would be capable of perpetuating their kind. This is a case, however, where one well-ascertained fact is worth a million theories. If, as asserted it is true of Australia, it will be equally true of California.

Wool Prospect of 1863.

Year by year the production of this staple assumes larger proportions, and occupies a higher rank among our sources of industrial wealth. Within a period of seven years, California has arisen from an unnoted and insignificant producer of wool, to the rank of the third State in the Union, with every prospect that the clip of 1863 will place her second on the list.

By the enterprise and energy of her sheep farmers, the character of her wools has improved almost in equal proportions to the increased production, and all this in the face of difficulties and drawbacks, that would in other States have utterly discouraged the prosecution of the wool business to any successful result.

It was certainly desirable that the approaching season should result in a manner to encourage farmers to further efforts, and to promote a greater expansion of this important industry. But while the condition of the Eastern markets is very favorable to such a result, the current discount on exchanges must tend to depress the market here, to a very great degree, and it would by no means be strange if this condition of finances, conjoined with the necessities of the farmers, should turn the market entirely in favor of the buyer, enabling him to lay in stock at rates that will render the discount on exchanges a secondary consideration.

In view of these probabilities, and the prospect that our incoming clip will amount to nearly *seven million* pounds, we should not be surprised if the attention of the Eastern trade should be much more strongly directed to this market than in any previous year, and our farmers thus be partially compensated for other drawbacks, by the increased facilities for effecting sales.

Placer Co. Agricultural Society.

At an annual meeting, held Jan. 7th, 1863, at Auburn, the following named gentlemen were elected officers for the present year of the Placer Co. Agricultural Society:

President—J. R. NICKERSON,		Lincoln.
Secretary—S. B. WYMAN,		"
Treasurer—E. M. BANVARD,		Auburn.
Vice-Presidents,	T. L. CHAMBERLAIN,	Lincoln.
	G. W. APPLEGATE,	Lisbon.
Directors,	JOS. P. DAMERON,	Lincoln.
	JOS. WALKUP,	Auburn.

We have been authorized by the Board of Managers of the Society to solicit persons to become members of said Society and receive subscriptions. Rates of membership are paid at $5,00. Any and all information will be cheerfully furnished by addressing the publisher of this journal.

The Society expect a donation from the county of $8,000 or $10,000, which will be used in fitting up the grounds of the Society, Race Track, Pavilion, etc.

We advocate the formation of District Agricultural Societies, in a State like ours, for, however some may think them detrimental to the success of the State Society, still they are the best means of fostering and building up the Agricultural and Mechanical interests of the county they represent, and we sincerely hope they will receive all encouragement. At a late visit to Lincoln, we had the pleasure of meeting with the Secretary, Samuel B. Wyman, Esq., who cheerfully afforded us much information concerning the prospects of the Society, and the condition of the agricultural resources of the county. Lincoln is a pleasant *little* town —new, of course—all towns must have a commencement— but from present appearances it bids fair to become of some importance in the future. The Logan House, corner of 5th and G streets, where we stopped, is kept by Mr. A. Mills, and it is needless to say that he "knows how to keep a hotel." Mr. Mills is a Kentuckian, and well informed on agricultural subjects, especially upon the culture of Tobacco in that country, from whom we derived much information, and it is not unlikely that the columns of our Journal may in future be favored with some articles from his pen, on the subject. In a future number we shall further allude to this place as we intend making a visit among those engaged in the culture of tobacco and the vine, and embracing some statistics of the rich agricultural region surrounding it.

PAPER MADE OF WOOD.—The entire edition of the Boston *Journal* is now printed on paper made of wood, by a new process. The paper is very white, and of good texture.

WOOL AND MINERAL SPECIMENS.—We shall feel obliged to our friends in the agricultural and mining regions for samples of wool of the various breeds of sheep, especially coarse wools (before shearing), with description of flocks and location; also, specimens of the different minerals, or curiosities in the mineral department, as we intend, at an early day, to make up a collection to send abroad, to show to the world the wonderful resources of our country in her mountains, hill sides and valleys, and the wonderful improvements in stock husbandry on the Pacific coast. Address parcels to the Publisher, 517 Clay Street, San Francisco.

Cultivation of Cuba Tobacco, No. 2.

After the first part of this series had gone to press, we received the translation of Julian Sylveyra's treatise on the subject, which will be completed in the succeeding number. Being a recognized standard essay in this department of agriculture in the island of Cuba, we deemed it best to give the article entire, notwithstanding its rather too literal translation, abounding as it does in high flowing Castilian idiom, almost amounting to hyperbole. Divested of this high flown style it appears that some of the finest and highest priced Havana cigars are made from tobacco grown by the aid of manuring and irrigation; that the manuring is all the better for consisting of a compost compound of decomposed horse manure and fine, rich soil; that the application is all the better for being divided into two or three manurings in the place of the whole being deposited at the time of planting out. All this is in accordance with what we know respecting the cultivation of the potato, to which the tobacco plant is allied, provided we could as conveniently divide the application of our dressings to the former as to the latter in the course of its growth. A perusal of Sylveyra's pamphlet shows that the highly prized and equally high priced tobacbo of Cuba is by no means derived from a plant of such luxuriant growth as that which obtains in Virginia and Maryland. The distances* which Sylveyra gives for planting out, namely, in a parallelogram of two hundred yards in length and fifty feet in breadth, one hundred and sixty furrows, and one hundred plants in each furrow, at a distance of half a yard from each other in the furrows; this space of land would therefore be occupied by 16,000 plants, and would equal a hundred varas square, or just about one and three-fourths acres. We mention these particulars in order the more readily to reduce the measurement to the comprehension of those not familiar with Spanish measures. On this quantity of land Sylveyra computes that the product will realize $1,359; the cost he computes at three laborers at ten dollars per month with board, which, including the latter, will, amounting to fourteen dollars per month per hand, or $505, real rix dollars, leaving a profit of $849 on less than two acres of land. It is plain that labor to the same nominal amount cannot be obtained in California for less than three times the sum set down for the like item in Cuba; it should, however, be borne in mind that properly directed, the same labor can and no doubt would be made to go twice as far in California as in Cuba. The use of the hands to grub up the hole to place the young plant in would never be adopted in California, and the primitive and inefficient modes of working would never obtain a footing here.

A careful perusal of Sylveyra's treatise has satisfied us that on good, rather light potato or turnip soil, the Cuban tobacco can be successfully grown in California, provided adequate attention is paid to the subject. The times of sowing, planting and gathering would have to be varied from those adopted in Cuba. A good soil, tolerably moist, or in the absence of moisture with facilities for irrigation, judiciously manured, are the appliances through which this desideratum can only be attained, the deficiency of climate having to be made up by extra manuring. There are many points of Sylveyra's paper well deserving attention, such as not forcing forward the plants too much on the plant bed, and in its future growth after being long planted out, inducing as much as possible, a gradual and equal growth. The remarks about decayed leaves and other vegetable matter promoting the growth of injurious insects are well deserving attention, though the annoyance will probably be more severely felt in Cuba, with its almost moisture saturated atmosphere, than in the comparatively dry climate of California. The repeated cautions which he makes respecting butterflies we suspect do not allude to the direct injuries caused by their attacks on the perfect, but on that of the larva, catterpillar or grub state, in which form the term worm is usually applied; the best remedy for which is said to be obtained by rearing a stock of young turkeys sufficiently numerous to devour hese pests as rapidly as they make their appearance, in what sport these fledglings are apt and industrious. Before, however, the plant arrives to this state it will have been necessary to attend to the planting. Sylveyra's method has been described at length, in the general principles of which we fully concur: the only difference in detail which we would pursue would be, that in place of scooping out the hole for the plant by the hand, we should do so with a shovel and fill in with a mixture of soil withdraw and manure, an attendant holding, in the meantime, the plant in its proper position, so that the well mixed and pulverized soil and manure should gently and tightly fall around and cover the roots, gently tamping the surface with back of the shovel when completed. We may conclude these observations by observing that in estimating the probable profit in cultivating Cuba tobacco in California, that though the cost of cultivation may cost more in this State, the crop will be much more valuable, so that it is highly probable that a good crop of full and fine flavored Cuba tobacco raised here would return a profit of at least $400 to $500 dollars per acre.

In a few days the change effected in these plants will be visibly seen; the prodigious growth they have made by the virtue of the manuring they have received, expanding more and more, from the fund of fertility in which they have been situated. This extraordinary vegetation astonishes the producer, and leaves him not a moment to rest, compelling him to dedicate himself to the assistance and education of his tender and growing plantation. After they have put out four or six leaves, I would give the second and last dirt to the covering, which would be with all that had found existence out of the furrow, or upon the part of the north, caring as much in this as in the first working, to not injure the trunk, stem or leaves, lest some of them should be injured, and afterwards result the injury of putrefaction and its contingent effects. Afterwards I would level and smooth the ground under the plants, leaving no hard clod or other object, against which the first lower leaves waving in the wind, could injure themselves. I would sweep *pathways* with a broom, to free them of the nests of insects, which may be destroyed with more facility. In this condition it would declare war with the laborious experimenter, who with strong motive should consecrate himself to fight with a vigorous army, that marches with a gigantic step to the end of its career. What prodigious transformations are experienced in the plant, day by day!! How incessant the increase! A growth so precocious cannot be exaggerated, since, like to the head of the hydra, every day despoiled, the same plant, to-day trimmed and pruned, appears the

*Sylveyra mentions each ditch or furrow as composing four-fifths of a yard, but as he alludes to one hundred and sixty furrows in two hundred yards, it follows that the width must be five-fourths of a yard, or in plainer language, a yard and a quarter Spanish, or about forty inches American measurement, and distant in the furrow sixteen and one-half inches on the same scale, These distances would not permit any extraordinary luxuriance of leaf.

next day with the same phenomena. The broad pathways scarcely permit the step, and many times one must walk upon the side, to not break with his body the luxuriant leaves, not being able to pass a line without his head entering into one or the other, so impenetrable is the green and solid wall he himself has planted. The whole plantation forms the most enchanting plain, displaying the most pleasing illusions, and seen from a distance seems a sea, whose waves are gently undulating. Whoever has seen the river Saint James, in the section of Saint Monica, would form a true idea of beauty and richness of this privileged culture, which could not fail to stimulate men the most listless and inactive.

I recommend very particularly the clearing of the streets, or paths and furrows, to prevent decomposition, and protect them from worms, bugs, crickets, and other vile insects, terrible enemies of tobacco, which, having no dens, it will be easy to destroy. In the same manner I would not permit to remain upon the plants, suckers, leaves, or other vegetation which incessantly springs from or around the stem, because they deprive the true leaves of those juices which give them size and quality. I would take the weeding and trash entirely out of the field, because the decomposition would occasion putrefaction, more injurious from the strong odor of balsam in solution that attracts many butterflies from the environs, and the consequences resulting from their multiplicity.

[TO BE CONTINUED.]

ALPACAS, LLAMAS, ETC.—Since our last issue, the U. S. sloop-of-war Cyane arrived at this port, having on board the Alpacas, previously mentioned as expected to arrive. Agreeably to an invitation from Commander Bissell, a party of gentlemen, interested in wool and stock raising, visited the ship—a boat having been placed at their disposal—and spared an hour or two in examining the animals. The party consisted of J. E. Perkins, Sec. Wool Growers' Association; E. C. Fogg, Messrs. Freeman, Fuerstein & Co., Judge Buchan, T. Rowlandson, and the editor and publisher of the WINE, WOOL, AND STOCK JOURNAL. The animals on board consisted of a male Llama, a male cross between the Llama and Alpaca, male Alpaca, and male and female Vicuna, all in excellent health and condition, notwithstanding their five months' absence from their native hills. During the voyage, they have occupied a pen on the deck, which, though canvass-covered, was somewhat harder than their native soil; yet they seem to have stood it remarkably well, only two having died on the passage, one of which, being the female Alpaca, was a severe loss, but which will be replaced at the earliest opportunity by Commander Bissell. The animals will soon be removed to Mare Island, where they will rusticate for a few months, and where they can be seen more in their native character. As we have alluded to them in a former number, we shall defer further mention until our next issue, before which time we hope to visit the Island, agreeably to invitation from Com. Bissell, and may perhaps present some drawings of the animals for our readers. Our thanks and those of our friends are due to Com. Bissell, First Lieut. Yates, and other officers, for courtesies rendered us during our visit. The above specimens of the different varieties of the wools presented to the publisher by Com. Bissell, can be seen for the present at the office of the Wool Growers' Association, on Front street.

EXTRA COPIES.—We send copies of the March number to many of our friends who are not subscribers, in hopes they will be induced, by a perusal of the same, to encourage us by sending their subscriptions for the JOURNAL. The terms will be found satisfactory to all.

Mutton Trade of New-York.

145 MILES OF SHEEP.

Few persons are aware of the extent to which sheep are sold in this city. Including those received at the four public market places, and those sent directly to butchers, an average of over 10,000 live sheep per week were slaughtered in this city during the past year. Besides these, there are at least 1,000 dressed carcasses received weekly. If the whole number were driven in at one time, three abreast, allowing four feet of space for each sheep, the line would extend from New-York to Albany, a distance of over one hundred and forty-five miles.

Since the commencement of the war, the demand for wool has so greatly increased that farmers are adding largely to their flocks. They find that, with the high prices of wool and the good demand for lamb and mutton, sheep-raising is one of the most profitable branches of farming, and they are now holding back their stock. Prices vary somewhat with the supply, but well-fed sheep, which will weigh 100 lbs., alive, have been selling at $5\frac{1}{2}$ and $6 per head for a month past; they are now (Jan. 15th) worth $6\frac{1}{2}$. The rise in wool has added largely to the value of pelts, mixed lots of these selling at $2\frac{1}{4}$ each, and selected pelts at $2\frac{1}{2}$ each.

In former years the thin ewes have been bought up by farmers for store sheep at $2\frac{1}{2}$ *a* $3 per head. Of late this class has been mostly kept in the country. Those sent to market have been bought up by butchers at $3\frac{1}{2}$ a $4 each. Contrasting with this class are a limited number of extra large fat sheep, usually sent in about the holidays and sold at high prices. A few have brought as high as $15 a $20 each. Three full-blooded Leicester sheep, from Canada, were recently sold to a butcher of this city for $70. They dressed 471 lbs. The pelts would bring $2\frac{3}{4}$ each, which would leave the cost of the mutton a little over 12 cents per pound. In view of these figures it is safe to advise the raising of *more sheep* and *fewer dogs.—American Agriculturist.*

HAND-BOOK ALMANAC OF THE PACIFIC STATES.—This useful annual, edited by Mr. William H. Knight, is now published for the year 1863, by H. H. Bancroft & Co., Montgomery street, San Francisco. Besides the general information contained in an almanac, it comprises an almost complete professional directory, and, in that respect, for such as are connected with the legal profession, almost becomes indispensable. This book contains a large amount of local, topographical and general information. The general contents are prefaced by an article, written by T. Rowlandson, F. G. S. L., entitled "Notabilia of the floods of 1861–'62, with special reference to the *Meteorology of the United States and Territories of the Pacific;*" a matter eminently deserving the careful attention of all engaged in agricultural pursuits, and a perusal of which, we suspect, will prove useful to all thinking persons whose interests (and whose is not more or less?) are affected by the mutabilities of climate.

COCO-MUNGO WINES...S. H. Meeker & Co., Front street, are agents for these celebrated Wines from Los Angeles Co. They have also the choicest brands of imported wines, brandies and liquors.

CALIFORNIA

Wine, Wool, and Stock Journal.

"Festina Lente,"---Hasten Slowly.

SAN FRANCISCO, MARCH, 1863.

Change of Title.

Owing to the discontinuance of the Stock Journal in the Eastern States, by the advice of several of our friends, we have resolved to apportion a part of our columns to subjects immediately connected with stock, and shall, in consequence, in future adopt the title of "The California Wine, Wool, and Stock Journal." In pursuance of this object, we have, in the present number, published the commencement of an essay on "The breeding of horses," which will be followed by others, relative to the various kinds of stock in which the farmer is interested.

Notice —The California Wine, Wool, and Stock Journal will, on and after the 1st of March, be published in San Francisco, at 517 Clay Street, where all orders and subscriptions should be sent. *Exchanges* should be addressed to San Francisco instead of Sacramento.

Existing Characters of California Wines.

[continued.]

In pursuance of the intention notified in our last number, we continue our observations by commencing with the Wine Depot of Messrs. N. B. Jacobs & Co.—the firm being represented by Mr. Reynolds.

We were shown, in the first place, some Claret made by Grossinger, from Sonoma grapes of 1860, a wine which will favorably compare with the bulk of that imported in casks, and clearly establishes the fact that wine suitable to the tastes and general consumption of our Gallic citizens can be made in California at remunerative prices, and at the same time below the cost of the imported article. The Claret alluded to, as made from grapes in Sonoma, it may be mentioned, is derived from the same species as those generally grown about Los Angeles, namely, the *Beni Carlo* grape. It is asserted that the austere taste of Claret made from the Sonoma grape, which replaces the sweetness found to pervade the so-called Port made from the same grape in the southern counties, arises from its being cultivated in a more northern climate. This may be partly true; but we suspect that more depends upon the mode of manufacture than variation of latitude, though doubtless the latter is productive of some effect.

Messrs. Jacobs & Co. have some excellent White Wine from the Anaheim vineyard of 1861; also Port Wine, though somewhat sweet, as all the so-called Ports are, respecting which we shall have more to say hereafter. *Angelica*—Was somewhat similar to that already described as made by others, and not dissimilar to much that we shall in future have occasion to allude to. The pride of this establishment, however, is some Los Angeles White Wine, of the vintage of 1855, in cases and bottles, which has received three premiums at State Fairs. The wine now alluded to has evidently matured more than any other which we have yet met with in our peregrinations amongst the wine cellars. It is the more gratifying to learn this fact, as it tends to greatly confirm the impression that time, and time only, is the great needful to enhance the value of California Wines generally. We knew this wine before it was bottled, and therefore can speak more confidently regarding what is likely to occur with wines of later vintages when similarly aged.

In our last number we alluded to the fact, that on the introduction of California Wines they were sent into the market in a very immature condition; and to some extent this remark applies to the wine under notice: on which account, we suspect, it will be right to attribute its present somewhat Rhenish flavor—a smack of which, there can be no doubt, all our California White Wines will obtain with age, though we think not in so high a degree as that under notice wnen the wines have been allowed to mature as slowly as possible.

Messrs. Sansevaine's establishment, Jackson street, represented by Messrs. Mercado & Seuilly, next drew our attention. So large is the demand on this well-known house for their wines, as fast as they mature, that their stock is almost confined to White Wines of 1861, with special exceptions to be hereafter alluded to. It is almost unnecessary for us to state other than generally, that the wines of the year noticed fully support the well-earned and extended reputation of this highly reputable and wealthy firm. Of their specialties we have only space briefly to particularize two; namely, a white wine of 1857 vintage, which participates in an admixed character of Moselle and Bucella, having the body of the former combined with the delicate flavor of the latter, and, consequently, admirably suitable for a dinner wine. The *Madeira* vintage of 1856, although not equal to the celebrated *South Side*, is decidedly superior to the *Bronte Madeira*, imported so largely from Sicily into New York and Britain.

Messrs. Sansevaine's Port is very clear, but obnoxious to the observation, like all the other so-called California Ports, of being too sweet. The Wine

Bitters of this house is sufficiently extensively known as to need no notice at our hands.

Messrs. Hobbs, Gilmore & Co., agents for B. D. Wilson, Los Angelos, possess some very good sound wines of the years 1860 and 1861 ; in fact, the remark applies with this concern, and also generally to the wine makers of the Pacific and their agents, that owing to the demand, comparatively very little wine exists of California make of older date than 1860. What little is in store is nursed with great care, and the holders are by no means desirous of disposing of it. Mr. Gilmore, one of the partners, very kindly extended to us every facility for inspecting the produce of Mr. Wilson's vineyards (for we understand Mr. Wilson has two). The white wine of 1861, afforded by this establishment, is sound, good and clear; we thought it quite up to the strength of wines of the same year made by other establishments, with a somewhat more bland-like fullness. The wine of 1860 not only comprised all the qualities just alluded to, and further mellowed by age, but had in addition a much higher aroma than what we have heretofore had an opportunity of observing in the wines of this coast of the same year. Mr. Gilmore showed us some wines maturing for champagne, from Mr. Wilson's new (Lake) vineyard : it was too sweet for our palate. We were shown other wines maturing in like manner for sparkling varieties, all of which were obnoxious to our taste owing to their sweetness, but which afforded every indication of eventually making a good wine. Whilst on the subject of champagne we would respectfully suggest to our chief vineyard proprietors the propriety of their individually preparing a small quantity of creaming champagne, a wine so much prized by French connoisseurs, especially in the province of Champagne, in which district the frothy or sparkling champagne, as we term it, would not be seen on good tables. The champagne drank in Russia, Britain, and the United States, is a factitious compound, not a true wine, whilst the creaming champagne has all the generous characteristics of a true wine, without rendering the imbiber liable to the frequently disagreeable sequences, which, it is well known to medical men, almost constantly follows the habitual use of the frothy variety of champagne.

Messrs. Hobbs, Gilmore & Co. possess an imitation Sherry, of the year 1860. We can only remark respecting it that it is a good, sound wine, and is a creditable imitation of the Spanish wine, so-called ; seeing the difficulties under which the manufacturer labored, namely, that of being compelled to imitate the flavor of a wine whose chief character is derived from the skin and seed of the grape, whilst using must from which those essentials are excluded. The instance of the imitation Sherry, now alluded to, and the Madeira of Messsrs. Sansevaine, & Co., are important as showing that California, at the present time, produces a wine well adapted to form the basis for a great trade in those world-renowned wines. The only thing wished being the introduction of the Verdelho and Xeres grape, in order to mix with and flavor the white wine produced by the Mission grape. Two varieties of Port wine are produced at Mr. Wilson's vineyards; one possessing something of the rough smack of genuine Port, though we suspected it arose rather from tartness than the usual stringency of "black strap;" the other was sweet, like Beni Carlo, of the Peach Brandy; we can only say that it is as good as we have usually seen. The Wine Bitters were excellent. B. D. Wilson will have bearing 200,000 vines the current year, capable, on the average, of yielding one gallon per vine.

Essay on Horse-Breeding in California.

THE Essay, of which the first part appears in the present number of the CALIFORNIA WINE, WOOL, AND STOCK JOURNAL, was written to compete for a premium offered by one of the prominent Agricultural Societies of our State, and was duly submitted to the Society, accompanied by another from the same hand, on the subject of "Cattle-breeding in California." The Essay on the latter subject was so fortunate as to be approved of by the Adjudicating Committee, was awarded the premium advertised, and received the further honor of being incorporated in the reports of the transactions of the Society now published; but the Essay on "Horse-breeding," (regarding which matter the author may own his weakness in thinking that he knew, and had a right to know, as much at least as he did about cattle-breeding, the former having been his hobby, and a horse his idol, from his earliest recollection,) was returned by the committee appointed to pass upon it as undeserving of notice or premium, "*because it was considered far too much in favor of those thoroughbreds.*"

Whether this reason for its rejection was intended to reach the writer, or no, is unknown to him, *but it did* come to his ears, and he felt that such a conclusion by a committee appointed to adjudicate in such matters, was a proof either that they were incompetent for their duty, or that they were persons directly or indirectly interested in some of the numerous inferior stallions which have been for a long time foisted upon the people of California as the perfection of breeding animals, and whose claims to such distinction the writer has always tried to place in their proper position, without, however, be it understood, mentioning individual horses or people. Had the Essay been condemned because it was badly written, the facts falsely stated, or the inferences unfairly drawn, or upon the broad and brief grounds

that "it was a bad essay," the author would probably bow to the decision with becoming humility, and quietly retire into his original nothingness; but when a Committee of an Agricultural Society in California are so bold as to record their opinion against *the principles* of horse-breeding which have been so long current as incontrovertible in the most civilized countries of the world, and when they say that there is such a thing as being too much in favor of the right method of carrying on a business intended to bring about a certain end, then the advocate of such methods (which have already been stamped as correct by far higher authority than any here) may be pardoned for having but slight respect for judgment so displayed, and being very willing to appeal, when opportunity offers, to a higher tribunal. That opportunity now offers in the publication of the Essay in the pages of the CALIFORNIA WINE, WOOL, AND STOCK JOURNAL, and the writer now submits it to the public, and especially to the real horse-breeders of California, in whose decision he will certainly have faith, as to whether the general principles he advocates for "Horse-breeding in California," are false or true.

The author will, as a preliminary, briefly sketch the way in which he treats the subject, and divides it: He first devotes some space to general remarks on matters specially connected with California as a horse-breeding country, and to general principles of breeding. He then discusses the various breeds of horses known and in use here, and the particular purposes for which they are desirable—the Thoroughbred or Race-horse, the Trotting-horse, and, in connection with him, the Canadian, Morgan, Black Hawk, and other breeds or families; the heavy and slow draught horse, and, in connection with him, the Clydesdale, Suffolk Punch English dray horse, and American draught horse; the native California or Mustang horse, and crosses of him with various breeds—concluding with a few general remarks upon the physiology of breeding, and a word or two upon the Northern American mode of using the horse so much more in harness than under saddle. Hoping, then, that this Essay will be more acceptable to the readers of the CALIFORNIA WINE, WOOL, AND STOCK JOURNAL than it was to the Committee of the Agricultural Society, who are not "in favor of those thoroughbreds," the writer submits it to the public judgment, asking nothing for his principles of horse-breeding but "a clear stage and no favor."

[POSTSCRIPT.—Since the above was put in type I have seen the annual report of the transactions of the Agricultural Society alluded to, and as what I there see is apparently at variance with what I have stated above, I extract, *verbatim*, from its pages the following part of the Report of the Committee on the Essay contributed: "The Essay on Horse-breeding in California, by Philippos, in the opinion of the undersigned, is too special in its object, and too superficial in matter to deserve mention." I think he who runs will be able to read in the following Essay that the "special object" of its writer is to encourage the breeding of good horses, and to discourage the breeding of bad ones. Possibly his views of the way to do this might have better pleased the Committee had he recommended for the purpose the general use of common mixed bred stallions, in preference to the thoroughbred horse of pure blood for two hundred years. The writer regrets he cannot in this matter swim with the current of popular ignorance and prejudice. He is, besides, somewhat surprised that "Sauce for the goose was not sauce for the gander," and that the Essay on Cattle-breeding was not rejected on a similar plea, because he advocates the pure Short-horn bull as the grand medium of improvement upon cattle. As to the matter of the Essay being "superficial," readers will judge for themselves.

On Breeding and Rearing Horses in California.

WHILST it cannot be denied that the breeding of horses must always be one of the leading pursuits, and prominent among the profitable resources open to the enterprising pioneer farmer of our young State, it will scarcely be disputed by any but the most superficial observers, that up to the present time but very little real progress has been made in this business of a nature really beneficial either to our State generally or to our farmers individually.—It is true that, in common with every other kind of live stock in our State, horses in very great *numbers* have been raised, and at present exist, consuming to absolute loss the valuable pastures of the land; but it is equally true that one-fourth the number of good and useful animals carefully bred and raised, properly fed and attended to, would have added twice the amount of wealth to the individual property of the owners, and the general resources of the State, costing less in the production. It will not require argument to convince, that one useful, saleable animal raised in civilized fashion, must cost less to keep than four, even though they do run wild (for last winter has proved emphatically that feed any where and every where is worth money), whilst in very exceptional instances, the common scrubs at four years old will sell for little more than what it is worth to break them, and will be worth very little when broken, whilst the one *horse* will earn his first three years keep by one year's work, while being broke on the farm, and will then sell for a remunerative price.

There are many glaring errors in our California system, but to this, as the first and the greatest, I would direct particular attention; the universal mania seems to be for numbers instead of quality, not only on the large ranches of the wealthy proprietors, but in the limited fields of the one hundred and sixty acre farmer, as on the open ranges of the outside hills; everywhere the country is overrun with bands of worthless horses and cattle, multiplying and reproducing their worthless kind without limit or control, and consuming pasture which, properly man-

aged, would be a source of profit to the State, and to individuals who might be disposed to give time and attention to the raising in proper manner, such animals, whether horses, cattle, sheep or swine, as the lands I speak of are best adapted to support.

Believing, however, that it would be a difficult if not impossible task to convince people who may find themselves, they scarce know how, possessed of bands of animals which they have been able to keep on open lands for which they pay neither fee, rent nor taxation, that such property is hardly worth owning, costing as it does so little *pecuniary* outlay, and therefore hardly felt, I shall not calculate that in the views I shall bring forward in this essay my remarks will be very suitable to any but the farmers or rancheros of enclosed and cultivated lands, for on them depends the progress our State is to make in the scientific and profitable pursuit of agriculture of which the raising of live stock will always be one of the most important branches. These are the men who must breed the horses on which California is to depend for the reputation she will, I fondly hope, sustain in the world as a nursery of fine and valuable horses, and to these men as the horse-breeders *par excellence*, and as such, the aristocracy of agriculture through all time, from days before old Homer sung of the *andra hippotrophon* or "horse-breeding men," as being the associates of kings—to these I shall address myself, as a humble brother of the craft, desirous only of forwarding the improvement of it, and deprecating from my fellow-laborers any supposition that I would arrogate to myself superior powers, or greater abilities than any of themselves may possess. The only claim I have upon attention is, that the subject has been the pet study of my life from boyhood to the present day; that I have been familiar with the noble animal we are about to discuss, in many aspects and in various countries; that I have read much that others have written, and reflected much both on the experience of others and what has fallen in my own way; and that, although it may be a characteristic of my temperament boldly to enunciate the opinions I may have formed, without any care as to how much or how little those opinions may be appreciated by a benignant public, many of whom I know will differ from me, still, I shall always do so, conscious that I am liable to error, and quite ready to modify or take back my opinions when once I can, by the light of reason, be convinced that they are wrong.

Let us commence, then, by first glancing at the natural capabilities of this California of ours for the purposes of the breeder of horses of every variety suitable for the different uses of man's service. I do not hesitate to assert that if there be any country on the face of the earth adapted by physical conformation and natural capability for bringing to perfection all the different varieties of the equine race, that country is California. Nature here presents us ready to our hand every advantage. It rests only with man to turn these advantages to proper account by bringing to bear upon them the lights of scientific knowledge and practical experience. Unfortunately a juncture of these qualifications is seldom found in an individual engaged either as an amateur or professionally in the breeding of horses. The men of practical knowledge are for the most part ignorant of all beyond the pale of what their own experience has taught them, and despise with all the self-sufficiency of unlettered ignorance the acquired knowledge of the educated investigator, whom they affect to look down upon, because they find him inferior to themselves in intimate acquaintance with their tricks of trade, or with the rule of thumb dogmas in vogue, and firmly believed in by grooms and horse jockeys. On the other hand, many gentlemen of wealth, ability, and general education, who may desire to pursue horse-breeding both as the agreeable recreation of the amateur and the remunerative investment of capital, are so completely adrift for want of that practical knowledge which their early experience and pursuits could not give them, that they find themselves dependent on, and are forced to look up to, the rule of the thumb and parrot-like knowledge of the aforesaid classes, the grooms, stablemen and horse jockeys. To return, however, to California, and the natural adaptability of the country for breeding horses; we find here every requisite for bringing to perfection every variety of horse useful to man, and we have the equable climate of the temperature, conceded universally to be most congenial to the horse, whilst we never experience those violent extremes of heat and cold, which are found, in countries where they exist, to modify, in a very material way, both the development, appearance and qualities of the animal.

From climate we pass to soil; and here, too, we are equally fortunate. We find in our rolling upland hills and sandy plains, with their nutritious but fine herbage, the natural habitat of the lighter horse for saddle and general purposes, whose original type comes from similar regions in the east of the old world. But our climate and country confines us to no breed or variety; for if we desire it, we have on

our rich bottom lands and heavily grassed alluvial plains, every facility for supporting and bringing to full perfection the Flemish, Norman, or Clydesdale breeds adapted to the city purposes of heavy draft; whilst again, the very same lands which naturally produce the herbage best suited to support these animals when in their natural state, if cultivated bring forth to grand perfection the very cereals required for them in their civilized state of subjection to man. What, then, is wanting to us in California to make us the first horse-breeding people in the world, and from whom eventually the distant regions of other countries may draw supplies for their improvement, as we now send to older countries for the pure blood of the different breeds of animals we desire to cultivate? Let us go on, then, in the footsteps of our ancestors, trusting that if we bestow on our art the same attention and care they gave, we may, as they did, excel the original fountain of supply. In former days, as is well known, England improved her indigenous breeds of horses by the importation of every variety of eastern horse. Now we see her exporting to every country of the world, and the very Arabs from whom was obtained the blood of the race horse, now consider it their greatest privilege to obtain for their mares a cross of the English thoroughbred. Already we have known in the matter of cattle-breeding, animals of certain blood which came originally from England, returned from the United States to that country, in order that they might regain a strain which had been lost, and regain it, in all probability, invigorated and improved by the constitutional alterations occasioned by change of climate. Why, then, should not a few generations of horses bred from the pure strains of the various breeds of England, but raised amongst the more natural conditions and more genial climate of California, have gained some innate perfections of the natural animal which may have been lost through the artificial treatment of many series of generations?

[To be continued.]

Cocamonga Ranch—Los Angeles County.—We learn that this vineyard has yielded well the past year, and that the vintage was unequaled as to extent and quality. About 20,000 gallons of wine, 3,000 gallons of grape brandy, and about 200 gallons of peach brandy were made the past season, to delight the taste of epicures.

Every one of four or five successive years will increase the yield of the vineyard, until which time, the vines last set out will not have attained their growth. The vineyard and wine making is under the management of E. K. Dunlap, as formerly, and since the unfortunate death of the proprietor, John Rains, he will assume the entire charge of the ranch.

The Occidental.—Want of space in our last number prevented our being able to give other than a brief notice of this stupendous and splendid establishment. We regret further that we cannot under present circumstances do other than make a very brief resume of its chief features. Passing into the hotel from Bush street, we enter into the chief office, containing the ordinary fittings and appliances of a large establishment plainly and appropriately adapted as such a place should be, for the reception and deposit of baggage and other et ceteras and accompaniments of such wayfarers as wisely come to enjoy "mine ease at mine inn" at this establishment. In such a place, where muddy gum boots, dripping umbrellas and reeking overcoats most do congregate, elegance would be out of place and appear tawdry; it is therefore not to be seen; plain substantiality and comfort are found in place thereof. Proceed from this to the reading room, however, the visitor at once finds himself in a spacious hall, such as would be complimentary for its architectural character, comfort, elegance and appropriateness of furniture, to the enterprise and public spirit of the Merchants' Exchange, pertaining to a first rate commercial emporium, such as some of our great marts of commerce at the east. For the use of the inmates of the establishment the telegraph is conveyed into this room, and it is purposed to add a mineralogical cabinet of all the mineral districts belonging to California, and including the adjoining territories and regions. Descending to the billiard room, we enter a spacious apartment well suited to satisfy the desires of those who enjoy the game; and if any feel thirsty or feverish, owing to excitement or other cause, he has only to walk through a doorway to become vis a vis with the most tastily fitted bar on the Pacific, where the polite attendant will speedily furnish a cooling draught in the shape of iced champagne, cooled by passing through a silver percolator previously filled with pounded ice, from which it will be made to trickle into a glass of Venitian pattern, ornamented with cinquo cento golden scroll work, forming a vehicle and a draught such as a Doge might envy in the palmiest days of the Bride of the Adriatic.

From this miniature Elysium we were conducted by the proprietor through certain passages into the various stores connected with the laundry, cooking offices, etc., not forgetting the wine cellar in our journey. We need scarcely inform our readers that all these arrangements are made on a scale commensurate with the magnitude of the establishment, of which any outsider may make a rough estimate by contemplating its exterior. Emerging from these depots of vegetables, fruit, meat, fish, etc, and passing through the elaborate kitchen into the crockery department, which is so arranged that all the dishes and plates required are always heated ready to hand, by a simple arrangement of steam pipes, we passed into the noble dining-room, from which we were then shown into the various sleeping apartments, all of which are fitted up in a manner equally tasty and solid with the other branches of the establishment. Messrs. Leland are already well known to our most esteemed and wealthy citizens, for their general urbanity, attentiveness and general business qualifications, and need scarcely an echo at our hands. We may conclude by stating to such of our country and Eastern friends as may have occasion to make San Francisco a temporary home, that they will find the cuisine first rate, under the management of first class cooks, that he may enjoy all the comforts of a home, whilst surrounded by the luxuries that would satisfy a Sybarite.

Seeds for Distribution.—Cotton Seed—two varieties. Tobacco Seed—Virginia—and Connecticut Spanish Seed Leaf. Sugar Cane Seed. One package of each variety of the above seeds, or any portion of them, will be sent, free of charge, to subscribers, *on receipt of stamps to pay postage only.*

The Wool Market.

It rarely occurs that a commercial writer has an opportunity in making the periodical review of any prominent article of commerce, such good reasons for congratulating his readers on a brightened aspect of affairs into a probably somewhat prolonged future; a future that to practical purposes may become permanent, should our unfortunate internecine contest be much longer prolonged, even if it should favorably terminate, or speedily as we could wish and is so earnestly desired; owing to the exhaustion of stocks and the comparatively limited scale which the cotton culture can be carried, for a year or two to come, there must necessarily arise an increased demand for woolen fabrics; it is, therefore, perfectly safe to say that for at least two years to come full if not high prices must rule for wool. Under these circumstances, it becomes more than usually interesting to review not only the wool statistics of the present year for the Pacific coast and the United States, but also that of the world generally. The first tendency of the high price of cotton was to diminish the consumption of wool, especially the inferior grades, as a larger part of the latter used to be mixed with cotton warp. This state of things continued up to June last, when the high price of cotton goods used for laborers' wear, such as fustians, moleskins, barragans, jeans, etc., and velveteens, for the Mediterranean market, having become exhausted, recourse, after a forty years' interruption, had to be made to wool for the warp as well as the weft, to make common woolen clothing. This demand, coming simultaneously with some heavy calls for army clothing purposes, on behalf of the United States, speedily ran up the prices of inferior grades to a considerable figure, though the action was scarcely felt in California until the bulk of last year's clip had been brought into the market.

Merino kinds, in the English market, advanced during the year only five per cent., whilst others advanced from five to twenty per cent., the most extensive transactions taking place during the month of September last. The ratio of the value of fine to that of common wool is usually as three to one, but at the close of last year it was only two to one. That the above views are based on firm grounds may be gathered from the fact there were imported into England the enormous quantity of 582,562 bales, being more than ten per cent. beyond that of any preceding year. The exportation of the raw material being considerably less for the same period, in addition to which it may be added, that the latest accounts from England describes the stock of wool in the hands of the growers as less than ever was known, a singular instance being mentioned in some of the newspapers of a farmer in Northamptonshire have recently sold his entire stock to a Yorkshire manufacturer, being his accumulated shearing for the past twenty-seven years.

Messrs. Clark & Perkins' estimate of the wool production of California and Oregon for the past year is as follows:

California	5,530,000 lbs.
Oregon, and other places	175,000 "
Total	5,705,000 lbs.

The increased growth may be gathered from the following table of the six years previous:

1856	600,000 lbs.	1859	2,378,250 lbs.
1857	1,000,000 "	1860	3,260,000 "
1858	1,428,351 "	1861	4,600,000 "

The shipments for the past year have been as follows:

New-York	12,551 bales.
Boston	9,434 "
Other Ports	128 "
Total	22,113 bales.

The shipments for the previous six years have been as follows:

1856	3,951 bales.	1859	10,570 bales.
1857	6,664 "	1860	12,082 "
1858	6,469 "	1861	15,984 "

Under the stimulas of prices, that reprehensible practice, "Autumn shearing," was more than usually adopted by our flock-masters, which will to some extent decrease the weight of this year's Spring clip, and deteriorate its average quality. At the close of last year no inconsiderable amount of wool was being sent east via Panama, per steamer, a practice that has continued, and is likely to be followed up with the forthcoming clip, a few bales of which have already made their appearance in the market. The quality is choice, and the produce full-blooded merino, from flocks owned by A. Roberts, Colusi. The lot was sold to the Mission Woolen Mills at an extreme price.

The Hide Market.

Since our last notice of the skin market, the production has somewhat decreased, as is usually the case at this season; the consequence is, that with an increased demand prices, if not improved, have decidedly stiffened, with a tendency towards higher prices. Even when estimated by a gold standard, in fact, there exists every symptom that for some months to come, the hides of horned cattle will be the most valuable part of the carcass. The great increase in the importation of hides may be seen on glancing at the following epitome of the exports for the following years:

1854	43,000	1858	168,933
1855	112,770	1859	151,364
1856	147,839	1860	200,250
1857	170,447	1861	181,186
1862..	New-York,		287,575
	Boston,		47,605

Of those above, exported last year, about 125,000 hides, it is estimated, were obtained from animals that were drowned by the floods of the season of 1861–62, owing to which, and imperfect curing, the larger part arrived in New-York in very bad condition—one cargo being worthless. We cannot too emphatically call the attention of country curers to the defective state in which a considerable amount of hides arrive in San Francisco, intended for shipment, especially as they compare very unfavorably with the better cured hides of San Francisco. The flaying by the butchers in the country is not as well done generally as by San Francisco butchers. These defects combine to greatly depreciate the value of country slaughtered and cured hides.

Our domestic tanneries have consumed a very great number of hides, the quantity of which it is impossible to ascertain; this source of consumption is however increasing.

Prices now quoted are for dry hides, 12 to 12½c., and 5 to 5¼c. for green do.

Mining.

The tendency of mining affairs has been buoyant since our last publication; the three or four chief mines that have paid dividends, having done so quite equal to expectations, the shares of which have hardened up to figures quite equal to the dividends; the hopeful, however, predict that in a few months these dividends now paying will be tripled, quadrupled, nay, some assert that before 1863 expires, tenfold the present dividends will be realized. We can only say that time alone will tell, and that within two or three years, whether all these prophecies are based on a solid or visionary basis—the mere coin o' the brain. The fact that mines of the precious metals usually go poorer in quality as they proceed downwards, although frequently richer in quantity, combined with the fact that in descending the expense of working increases, to say nothing of the greater tendency of

water to flow in, and so requiring more powerful engines to keep the working dry, added to the rapidly decreasing means of obtaining fuel, ought to tend to sober the views of the more intelligent. Promising mines, as those asserted to be promising, have been looking up, along with the dividend paying ones, and those of a wild cat character are breathlessly awaiting their turn, which they say must come next, and that soon.

Could not the principal parties interested in the last named class hold a convention, something like that recently reported by us as being held by the stock growers, that is to hold *matanzas*, to kill off a certain portion, so as not to overstock the market? For, as matters now stand, all the blood, bones, and muscles of California, added to all the gold, silver, and greenbacks in it, would not suffice to purchase the whole of the incorporated companies at their nominal value; and the cry is, "Still they come!"

FINANCIAL.

THE additional issue of greenbacks authorized, or about to be, by Congress, has had the effect of putting up gold to a premium of upwards of seventy-five per cent., which will be greatly increased as they issue from the treasury, the currency already having been redundant, even for the most flourishing period of the commercial history of the United States, in place of the narrowed character of the internal and external trade existing at present. When and what is to be the end of all these, the wisest have ceased to conjecture. The commercial community wisely, and as justly as they did wisely, resolved, as far as in its power lay, to adhere to a strictly metallic currency, and this intention has been carried out under all circumstances of the case, with a wonderful amount of unanimity and good faith. The state of incertitude existing as to the constitutionality of the measure declaring such notes a legal tender, has given rise, in many instances, to some sharp practice, and unless the uncertainty is soon terminated, will doubtless give origin to much more, and so extend itself that, "nolens volens," the commercial community will find itself compelled to adopt the paper currency, as it is accepted at the East. When the merchants of San Francisco, Sacramento, and other great trading centres, agreed to stand by a metallic currency, they ought, on the instant, to have brought a test case before the proper tribunal, and if requisite, had an adverse decision been given, at once carried it to the Supreme Court of the United States, in order to obtain an early adjudication. When such occurs, we may have a few words to say on the legal bearings of the subject. Money is plentiful at moderate rates of interest, provided unexceptionable collateral is given on loans.

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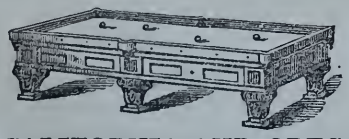

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CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SAN FRANCISCO: APRIL, 1863. NUMBER 4.

FINE WOOL.

The experience of the last rainy season, 1861–62, combined with former instances only differing in degree, has established the fact that at intervals not extending beyond an average of five years, heavy and somewhat lengthened rains should be anticipated and guarded against by the prudent farmer. To wholly protect large flocks from atmospheric vicissitudes in the present state of California, and for some years to come, will be too heavy a cost of labor and capital to be generally or even partially adopted. It is on this account that we advocate the breeding of animals of the ovine race on this coast that can withstand a certain amount of inclemencies without any injurious consequences arising therefrom, either to carcass or fleece, rather than a variety that would sink under such vicissitudes. A sheep that will yield a good amount of internal fat and a fair weight of wool, of fair but not fine quality, grown on a small or moderate sized carcass, we hold to be the best adapted to the purposes of the wool grower on this part of the Pacific coast. It is not our intention, at the present time, to enter into a disquisition of the particular varieties of sheep that we would recommend, either for general or special adoption; it is our purpose only, at the present moment, to draw up a succinct account of the specific character of really fine wool, the character of animal from which it is derived, and the treatment requisite to maintain that fine character.

Fine wool, like many other names or titles, when applied in different parts of the world, although similar in orthography and sound, possesses widely different meanings, the term becomes relative rather than actual. In therefore commencing a series of articles connected with the subjects of sheep and wool, we have thought it advisable to commence with the highest and most valuable variety, reference being had weight for weight. We need only rapidly glance at and refer to the fact that for some centuries the Spanish Peninsula had been celebrated for the production of the finest fleeces; this reputation has only become eclipsed during the last three-quarters of a century by the Saxon descendants of the Spanish Merino, the latter now slowly yielding the preeminence to his Prussian-Silesian derivatives. It is not necessary to dwell on the politico-economic causes which have been the means of depriving Saxony of its former high reputation; suffice it that such is the case. The immense advance made in the quality of wool among the best Silesian flocks can only be fully understood by comparing the best fleeces of the present day with those at an earlier period, of the introduction of the Merinos; which shows, also, in the most striking manner, what a long time it has taken to attain the existing superiority, even when the first steps were commenced with Spanish blood of the highest class.

The patience, intelligence, perseverance, industry and enterprise of Silesian Germany was favored by a climate and soil somewhat favorable to the object sought to be attained; its lands lie high and dry; its pastures improved by high cultivation; the climate is neither too cold nor too warm, so that a close cover is at no period of the year too warm for the animal. Kuchelan, Hennesdorf, Gros, Sterlitz, Chazelitz, are the names of the places where the finest stock is raised; and to these places the wool growers of other places throng, at the commencement of every year, to obtain a few of these famed animals, for at this period the annual surplus stock is sold. The price at which rams are sold is very high, single ones not unfrequently bringing a price equal to from fifteen hundred to two thousand dollars.

The most famous flocks are owned by Prince Lechworsky. They have for upwards of half a century had the reputation of evenness, and possessing all the qualities of Merino; he has now ceased improving his flocks and obtains the highest prices for his rams. He possesses in Prussian Silesia about eight thousand head, from which he sells his surplus every year, producing about forty-six thousand rix dollars, or about thirty-two thousand two hundred dollars. For the purpose of obtaining the finest wool, experience has fully established the fact that this can only with certainty be accomplished by the employment of *thorough* blood. Purchasers are consequently always desirous of procuring animals from well-known flocks, the character of whose wool is thorough and constant, and comes fully up to all the demands of the manufacturers.

Sometimes in an inferior flock, an animal is found which has all the qualities of a super-royal electoral; but such an animal often, indeed generally, produces offspring inferior to himself, and possessing the major part of the faults of the common ancestry. In the improvement of flocks it is of the highest importance to select the best animals, but it is very difficult to make the proper selection, requiring a well-practiced eye to detect the faults or the parts most likely to be transmitted, and to select only such as are the best adapted for climate and local circumstances.

HISTORICAL SKETCH OF SILESIAN WOOL CULTURE.

Prussian Silesia, even before the introduction of merinos, always produced a wool of a superior quality, which commanded a higher price than that of neighboring countries; but at that time the number of sheep were not very

great, because the baronial estates had the exclusive right of keeping sheep, and pasturing them upon the property of the peasantry. At some of the estates, not one-fourth of the number they have at present were kept. About 100 years ago all Silesia had not one-fourth of the present number, which amounts to two and a half millions. A Prussian cwt. of wool (nearly the same as the English) costs about $30, which at that period was a high price when we consider the higher value of silver; the average price of all the qualities of the present period amounts to $52 per cwt. The increased revenue from wool which the Prussian province of Silesia now enjoys can be easily calculated from the above data, but this increase of revenue is only effected by the increase of merino sheep. The first ones were brought there by Count Eckersdorf, who at that early period established a merino stock farm, for which Frederick the Great made him a present of a Spanish ram and a few ewes. In 1801 Count Haugwitz, then minister of state, obtained from William the Third, of Prussia, the best ram and ewes of a small flock, which were imported direct from Spain; these few merinos formed the stock from which Silesia improved its flocks. The merino sheep of both these noblemen were pretty nearly of the same blood—large, vigorous animals, with strong, elastic wool.

Although the blood was thorough, and the character of the wool good, the number with which they commenced was too limited to produce a rapid progress in the increase and improvement of the flocks. The shepherds entrusted with them were ignorant in regard to a better mode of treatment, and those few precious animals were treated like the native breed, left to themselves and nature. The few samples still existing from these first merinos, show, when compared with wool of the best breed of the present period, how greatly the wool has been since improved, and how much the price of merino wool has been diminished. Since that time, the wool which then cost 165 Prussian thalers per cwt., would not at present bring 90 thalers.

The estate holders of Silesia crossed, with great success, their native flocks by rams of these merino flocks, and the fact that rams with strong, elastic wool, and with a well-developed body, produce a more profitable breed, and in shorter time than those delicate animals, with very thin and soft wool, was fully proved. The wool growers of Silesia became also acquainted with the merinos of Saxony; they procured rams and ewes from these; but they had a different character from the Silesian; the wool was softer, and the sheep of a more delicate form and size. Silesia then had two distinct breeds—those of the flocks furnished by the King of Prussia, with a strong, elastic wool, and large, strong body, and the Saxon breed of small size, and with thin and soft wool. At that time the knowledge of wool was exceedingly limited. Very little attention was paid, also, to the form of the sheep; the only object was to obtain pure Spanish blood.

The progressive demand for merino wool, and the success in breeding, induced all the estate holders to improve their native flocks. Saxony was the only country where merinos could be got to supply the numerous applicants, and the flocks of the elector and those of the private estates of Klipphausen and Rocheburg furnished most of the imported animals. Those who had less means bought rams of a cross breed of native sheep and merinos, and in a short time few of the original country sheep could be seen. The improvement was principally carried on with rams of mixed blood, and with a very limited knowledge in breeding. It is a wonder that Silesia has arrived to that superior kind of wool which it now possesses. The different demands of the manufacturers, in regard to the nature of the wool, according to the articles they intended to produce from it, in the beginning misled some of the wool growers, and induced them to make changes, and to increase the fineness of the fleeces, which gave it a tendency to *twist* and *felt;* but it was only in a few flocks, and if such a fault crept into a breed, the original thorough flock always offered a sure remedy. Gradually the Silesian wool growers brought their wool to a quality which answered all the demands of the manufacturers in cloth and various new styles of woolen stuffs, and attracted the buyers from all countries to supply their wants.

The Silesian wool passed through different stages, in consequence of inexperience, till it came to the state of perfection just mentioned.

From 1785 to 1805 was the period when the first Spanish merinos were introduced, and when the wool growers were entirely ignorant in the knowledge of wool and management of merinos.

From 1805 to 1815 was the period when the estate holders of Silesia saw the advantage of raising merinos, and the difference of merino and common wool began to be understood; when in the formation of the staple, a great number of curves of the merino wool hair were considered essential characters for fineness. At that period the wool growers traveled for information, and brought merinos from Saxony into Silesia.

From 1815 to 1825 was the third stage of the Silesian wool culture. The great desire then was extreme fineness; they overlooked many other very valuable qualities of the wool, and the large size and vigor of the animals. The high price of $126 per cwt. caused this error. With the highest degree of fineness, great softness had to be combined; the Saxon breed, which was called *electoral*, combined these qualities. Such sheep were employed in crossing; consequently the finest Silesian consisted of thin fleeced, delicate animals, which, besides a deficiency in wool, were liable to all sorts of diseases.

The period from 1825 to 1830 may be called the test for the German wool growers, and particularly for the Silesian. In that period the price of wool sunk exceedingly low, and it appeared as if England had taken leave forever of the German wool market, and that she supplied herself from her colonies sufficiently for her wants.

Many were affrighted and began to diminish their flocks, and changed their whole system of farming. It produced a crisis, and their attention was principally directed to an increase of wool in the fleece, to compensate for the loss sustained in the prices. This crisis operated very beneficially upon the whole system of breeding merinos; the wool growers instead of aiming at the highest degree of fineness, had now a greater quantity of wool in view. This was the commencement of a system which developed itself to much more advantage afterwards.

Finally came the fifth stage and the present state of the Silesian wool growing systems, which has for its object to produce not only the finest and softest wool, but in great quantity; and besides, a high degree of softness elasticity and nerve is not overlooked, whereby not only the value of wool, but the weight and volume also are enhanced, and these precious qualities are all combined in the flock of Prince Lichnowsky, and in such flocks as have been reared from his famous breed.

During these various periods the Silesian wool growers have obtained great experience in breeding merinos, and in the nature and character of wool. Societies of wool growers were formed, in the meetings of which the most important questions were discussed, experience and facts made known, and they educated superintendents and shepherds for this branch of husbandry—all which has given them an advantage over other countries, which it will be difficult to take from them. Spain never will be able to obtain the golden fleece again, and other countries may strive for ever, and perhaps Silesia will always be in advance. In the meantime the improvements of the farms were not neglected; pastures were sown with grass and clover, and large quantities of fodder were housed for the winter, which amply supplied the flocks with food. Through a proper culture of pasture land they were able not only to furnish a more abundant food, but a more healthy one. They used only the seed of such plants as perfectly agreed with the nature of sheep; the comparatively few cases of disease sufficiently prove this.

Another advantage was gained by the system adopted of improving the pasture land; the wool developed itself more perfectly, and it is an established fact, that the better and more regularly the sheep are fed and taken care of, the more

uniform and healthy the wool becomes, and its superior qualities remain without deterioration.

Silesia can no longer increase its number of sheep; its whole farming system has been improved with a view of keeping the greatest number of sheep possible under any circumstances. In regard to quality there is yet a great deal to be done in Silesia, notwithstanding its superiority over other countries in that respect. The above mentioned desirable qualities of wool which some flocks possess, are not to be found in all of them. There is about one-tenth of the whole number which comes under this superior class, the remaining nine-tenths of Silesian flocks are in different stages of improvement, and to eradicate the various faults of wool from these flocks, and bring it to what is called an even character, will be the work of years.

[TO BE CONTINUED.]

[For the Wine, Wool and Stock Journal.]

Culture of Chinese Sugar Cane—No. 2.

CULTIVATION.

In this department the vague direction of "cultivate as we do cane," has been almost universally given, but this we find does not meet the necessities of the plant, for when corn needs but moderate attention, cane needs most; and when corn requires working, cane needs none at all.

Our practice is to commence our cultivation about three or four days after the cane plants have made their appearance. The ground around the young plants needs to be kept open and porous that the air and warmth may be admitted. To accomplish this, we first go through with a cultivator having harrow teeth next the rows, that we may run close to the rows and not endanger the plants. This we follow up in a week or more with a shovel plow fitted with very narrow shovel, but fourteen to sixteen inches long, in order to pulverize the soil to that depth.

The cane plant delights in deep soils; hence it will endure our dry season well. If the ground is stirred to the above depth two or three times during the season while it is making a growth of two or three feet, it will need no further work. Hilling we have found to be rather an injury than a benefit; stirring deeply is the best. When it arrives at the length of two or three feet, it begins to joint and throw out lateral roots, and these latterals should never be disturbed. At this period the plant begins to develop its own nature, and you will not assist it by breaking or disturbing its sources of support; hence, your aid must be applied previously. The roots will be found to penetrate the loose earth to its full depth, and further, and all the nourishment the ground contains will be at its command. The stalks will grow so rapidly that no weeds will start to impede their growth, and there will be no further need for cultivation.

The stalks will now exhibit great strength and thrift, and the plants will be found to contain more sweet than any grown the more common way of skimming the surface.

With our virgin soil and California dispositions we are too apt to look upon all extra work as of no use—only labor in vain; but it is far otherwise. By following the above hints I can safely assure one half more syrup than from a crop carelessly cultivated. This will be ample compensation for the labor and care bestowed at the *proper season* and in a *thorough manner.*

SUCKERING.

Whilst the plant is growing to the height of two or three feet, it is continually throwing out suckers. These take away the strength from the parent stalk, and should therefore be pulled off before they have attained many inches height.

There are, however, not a few who claim that though you secure a larger stalk, you secure a greater yield of syrup and sugar to the acre by letting them grow. Such also claim that the juice in the large canes usually require to be boiled fifteen gallons into one, while small ones return a gallon of syrup to five or eight gallons of juice.

If the suckers are allowed to grow, the cane will be uneven, which will injure the character of the syrup, and the crop will be more likely to be prostrated by storms, as the suckers come out from the roots with a bow, and make a crooked stalk that is easily blown down.

There should be seed enough put into the ground to secure a full stand of *original* stalks that will ripen. The cane bears transplanting well, and such a growth may be secured by thinning out or inserting others where required.

These are a few hints of what has been learned in the progress of sorghum culture, and if any think they know a better way, they should give the public the benefit of their ideas.

We will succeed this by a future article on harvesting and manufacturing.

FATTENING CHICKENS OR FOWLS.—Some are accustomed to fatten fowls in coops. The time they will bear this confinement is about fourteen days. An excellent food is barley-meal made into paste, with the skimmings of pot-liquor, and milk to drink. Some have them a longer time than a fortnight, but they are apt to decline in their flesh, and will become a mass of fat.

Report on the Petition of the Wine-Growers.

THE following is a copy of the report made by Mr. Herrington, on behalf of the Committee on the Culture of the Grape, to the Assembly, on Saturday, February 28th:

We respectfully report now, that in accordance with our duties, and with the instructions of the Assembly, we have prepared the accompanying memorial, and in the investigation of the subject have ascertained the following facts pertaining thereto.

The number of grape vines set out in vineyards in the State, according to the report of the County Assessors, as compiled in the Surveyor-General's report for 1862, is 10,592,688. The following principal wine counties have the number of vines set down against them respectively.

Los Angeles	2,570,000	Amador	311,000
Sonoma	1,701,661	Calaveras	300,000
El Dorado	772,547	San Joaquin	300,000
Yuba	650,450	Yolo	214,430
Santa Clara	600,000	Tulare	225,000
Napa	540,000	Tuolumne	197,300
San Barnardino	500,000	Contra Costa	184,200
Sacramento	412,000	Placer	135,532
Solano	400,000	Santa Barbara	115,000

The rate of increase in the number and size of vineyards is large. All the vines of the State did not number 1,000,000 seven years ago. Los Angeles, which had three times as many vines surviving from the time of the Mexican domain as all the other counties together, had 592,000 bearing vines, and 134,000 young vines in 1856, according to the County Assessor's report for that year. The annual increase in the State has been about 1,500,000 since then; and though less hereafter, it will still be large

The amount of wine made in 1861 is reported, very incorrectly, by the County Assessors as amounting to 343,000 gallons. The amount made in 1862 was about 700,000 gallons. The total amount made in all other States of the Union in 1859, according to the United States census, was 1,350,000 gallons, and the same authority puts down California's wine yield for that year at 494,000 gallons, which figure is very nearly correct. We say in our memorial that California will soon produce more wine than all the other States. In Los Angeles county most of the vineyards have 1,000 vines to the acre. In Sonoma the number varies from 680 to 1,000. The average number may be estimated at 900; and the 10,000,000 vines of the State cover about 11,500 acres. An acre of California vineyard in full bearing produces at least 500 gallons annually, and at that date the produce of the 11,500 vines would be 5,500,000 gallons. Strike off, however, one-third for grapes lost, wasted and consumed for the table, and we have an annual product of 37,000 gallons. The reason why the present produce is so far below that figure is that most of our vines are still very young, and will not be in full bearing for several years yet.

Not only is the wine-growing interest larger in California than in the remainder of the Union, but it deserves to be considered the favorite and most cherished agricultural interest of the State. The grape converts a country into a garden. A common ideal of happiness in ancient times was for a man to live in the shadow of his own vine. Numerous vineyards are considered a proof of a joyous and temperate people. Our soil and climate are peculiarly fitted for the grape. In no other part of the world is it more healthy, produce certain in its yield, or rapid in its growth. It is policy to encourage those productions which find the most extensive and most steady market, and in which we shall have the fewest rivals; and it is bad policy to foster branches the products of which can be grown in many other lands, and are unsteady in price. The three main articles produced by tillage in California now are wine, wheat and barley. Wine is an article which is produced by few other countries —by none other on the shore of the North Pacific—and which has comparitively few fluctuations in price. Wheat and barley, on the other hand, can be grown everywhere, and undergo great fluctuations in price every year. Besides, unlike the grape, they exhaust the soil, and, require a rotation of crops, for which our climate is not suited.

Besides it is to be observed that large tracts of land in the Sacramento basin, between the Tejon Pass and Shasta, almost bare of grass and considered valueless for grain, may produce good crops of grapes—at least vineyards have succeeded admirably on similar lands; and the gaapes which tookt he premium, at the last State Fair, were grown on such soil.

We say in the memorial, that the value of must, in the largest wine districts of the State, does not exceed fifteen cents per gallon. Hundreds of thousands of gallons could have been bought for twelve cents per gallon, during the last vintage, in the town of Los Angeles, which produced half of all the wine in the State. Grapes were sold at $10 per ton, and the material for a gallon of must cost only six cents. It may appear strange to the general public, that when must (from which the wine is made by fermentation alone, without the aid of any other substance,) costs only twelve cents, the wine is sold for one dollar by the gallon, and for half a dollar by the bottle; and the wine-grower still complains that his business is unprofitable. But a great distance and many steps separate the press from the glass. Ten per cent. of the must is lost by sediment and evaporation in the first year; ten cents per gallon must go for casks; ten cents per gallon freight from Los Angeles to San Francisco; thirty cents per gallon for bottles; and the wine ought to lie two or three years before sale, paying one and a-half or two per cent. monthly interest. The commission merchant, the jobber, the retailer, the common carrier, the money lender, the broker, the insurer, and middle-men of various kinds, each demanding a large profit, come between the producer and the consumer, and oppress both.

It might be said by those not well informed, that the proportion of the tax on wine is not to be estimated by the price of must, which is not taxed. But such an idea is erroneous. In general language must is wine, and in technical language must becomes wine in a few days by fermentation. The price of the must is the proper standard for estimating the proportion of the tax.

After our wine business shall have been well established by age; when all our wine growers shall have provided themselves with presses and with cellars; when they shall have learned how best to manage their wine; when casks shall be abundant at prices such as those which prevail at Cincinnati and Bordeaux; when we shall have driven foreign wine from the American market, and shall have commenced to export largely to foreign lands, and shall have tried and trusted agents in many distant seaports, then we might bear a burthen, which now is oppressive.

The productions of the country may be considered as composed of three different classes, under the Federal tax bill. *First*—The agricultural products, which pay no tax. *Secondly*—Manufactures, which pay three per cent.; and *Thirdly*—Fermented and distilled liquors; the former paying five, and the latter twenty cents per gallon.

Your Committee do not see any good reason why wine should not be classed with other agricultural products, and entirely exempted like them from taxation. It is no more an article of luxury than many kinds of fruits and vegetables; and it is now, in Southern Europe, and will within a few years be in California, a necessary of life. It is, in strict language, an agricultural product. The man who owns a large vineyard must make wine. He cannot store his grapes for months or years, or sell them to distant manufacturers; he must press them forthwith and on his own premises. The time is not far distant when wine will be used on many of our tables instead of tea and coffee; and the taxation should be discriminate for, not against, the domestic beverage. While it is clear to us that wine should not be taxed at all; yet, rather than risk anything of what others might consider too much, we content ourselves with soliciting that wine may be placed on the same footing with manufactured articles.

WINE MEMORIAL.

The following is a copy of the memorial:

WHEREAS, Congress has levied a tax of five cents per gallon on all wine made in the United States,

And whereas, the value of must, or wine fresh from the press, does not exceed fifteen cents per gallon in the largest wine making district in this State, thus making the tax on the wine three hundred per cent. more than that levied on manufactured articles generally,

And whereas, this unequal and consequently unjust taxation is levied chiefly at the expense of California, which is now the first wine State in the Union, and will next year produce more than all other States put together,

And whereas, these taxes are not only unjust, but in many cases almost ruinous to the producer, and must have been adopted in misapprehension of the facts, therefore,

Resolved, by the Assembly, (the Senate concurring,) That our Senators and Representatives in the National Congress be requested to lay the facts stated in the preceding preamble, before that body, and urge a reduction of the tax on wine

to the same rate with that levied on manufactured articles generally, and,

Resolved, That the Governor be requested to forward a copy of these resolutions to each of our Senators and Representatives in Congress.

THE HEAVY TAX ON WINE.

The concurrent resolution which passed the Assembly, asking a reduction of the Federal tax on native wines went directly to the Senate, and was there debated, but all on one side. Senator Perkins said we had 10,000,000 of vines in bearing, and very soon would have 20,000,000. Our wines were directly competing with those of France and Germany. This tax of five cents a gallon upon wine worth fifteen cents a gallon was an error on the part of Congress. They were not awake to the injury they inflict on us by the exorbitant tax, or they would never have made it so high. Call attention of Congress to the facts connected with our wine-producing interest, and it will cheerfully correct this error, and put the tax on wine at the same figure that it is on other manufactures—three per cent. The resolution was referred to the Agricultural Committee.

Julian Sylveyra's Treatise on Tobacco.

[CONTINUED.]

The tobacco having been cropped or topped at the height it should stop, the flower having again appeared, three or four handfuls of dirt should be given it, and the ripening of the leaves will begin, which state will be known by their perfect formation, the pumice and crystallization of the sap, which appears in globules, sandy globules, colored different shades of yellow, according to the state of the atmosphere, the size of the spot varying to the action of heat or cold; and if one wishes to increase the color of the leaf, it should be left a longer time, until fully ripe, which will produce more quality in virtue of the fermentation the sap makes in the parenchyma or cellular texture, in which state it should be cut, since in this state it is exposed to many injuries, besides becoming spotted. Excessive dew or showers that cannot be absorbed by the leaves, brings on torpidity, which occasions fermentation and debility of the epidermis or cuticle. The sun shines upon them, and spots of iron, etc. etc., are formed upon them, which truly mar their beauty. The first leaves, being nearest the ground, ripen first, and are subjected regularly to these defects; moreover, for their little quality, which results from want of air, continual friction, moisture and other causes, which makes them inferior and renders them unfit for any use except for fillings, etc. The best manner to cut tobacco for convenient experiments, is, in hands of two or three leaves hanging from a part of the principal stalk of the plant, cutting from top to bottom with a very sharp curved knife, and near as possible the stem of the leaf, caring not to wound it, because from this avenue it would lose the necessary juices—in this state it will perfect its quality, which is done by elaborating by the fermentation of its materials. The knife made in the form of a sickle, should be taken in the left hand, and with the right hand grasping the lower part of the bunch, raising it gently to discover the stalk to see where to cut; afterwards I would place said bunch or cluster in the middle of the path, the superisr part of the plant underneath—the lower part exposed to the sun for it to be withered, and that it may be collected with facility and placed in the cujis or sticks, where scarce half of the bundles would have been contained if this operation had not been done. I would endeavor to not leave much of the stalk in the bundles, for the difficulty occasioned to the leaf in drying, since the leaf, although weak, continues receiving the ascending sap, which juice greatly impedes this most interesting operation, which ought to be rapid as possible to avoid the terrible effects of fermentation, putrid fermentation which is commonly called "excoriation," communicating itself with rapidity to the whole deposit, and assuming the appearance of a pestilence, producing great loss.

Tilt galleys should be formed around tobacco houses, in which to deposit the sticks that have been cut by sections, to the end that the gathering may be performed in good order, not until after they have made the first fermentation, which the workmen call ripening, and which will hasten very much the drying of the leaves in the said houses.

The empty cujis should be placed upon some wheels in the guard spaces, wheels two yards wide, and which will be able to contain eight loaded cujis, which the gatherer will fill with those first cut, since they are most withered and should not be left too long in the sun. The mode of collecting said bundles is sufficiently well known, and it is truly very advantageous to parade the bundles apart, being careful that the wind shall not make them fall into a situation encountering the shoots, leaving the principal stem out, by which mode it will take less time to dry. The measure of the cujis regularly is four and a half yards, and the quantity of bundles it will contain, more than 150 or 200. When the first fermentation is over, which is commonly in four days, at which time they are placed very near and almost pressed into the maduraderos (places for ripening,) they should be brought into the tobacco house and placed upon the sticks as separate as possible, that the free air may circulate through them, destroying the bad odor they have acquired by their violent fermentation, and that they may dry with more facility. When the abundance of the collection exacts a place for this preparation, the driest sticks should be collected—those that without inconvenience from the moisture of its juices can be reunited when wished for, and needed to give more capacity to the late ones: this operation has moreover the advantage of concentrating the aromas of the leaves, taking some with others, according to the scarcity of the latest and the superabundance of the most imbued or loaded. The first cut having been made, which is the best, and which is known by the name of the principal or first cut, the stalks should be cut from the flower to the ground, and a general irrigation of them be made, according as the time may be, in order to revive the fertility of the land, blunted in some manner by the strong former growth. By this means, the shoots will be more readily liquidated, and will serve to make the second harvest, which is known by the name caparudas or second cut.

PUBLISHER WINE, WOOL AND STOCK JOURNAL:

DEAR SIR:—In your valuable Wine, Wool and Stock Journal in the March number, is a misapprehension in Mr. R.'s interesting paper upon the Llama and Alpaca, which is this: I stated, or intended to state to him, that Mr. Ledger (to whom Australia is so deeply indebted for the importation of these animals) mentions the great success which has attended his experiment in crossing the breeds, and the improved character of the wool, but he does not say whether the cross was made between the Alpaca, Vicuna, and the Llama, or either of these breeds, and the Merino sheep. It could not have been between the Llama and Merino, because the cross resulting from this would partake of the qualities of both parents, and the Llama is a much coarser wool than the Merino. The crosses he speaks of, I have no doubt, came from both stock, the Alpaca and Vicuna. He mentions one fleece weighing 26 pounds, of only eighteen months' growth. I am of opinion that the great improvement he speaks of in the cross between the Alpaca and Vicuna, which is a well established fact, that these animals have been crossed with entire success in Peru and Australia, the only instance mentioned in their native country is found recorded in the archives of natural history of Peru, when a life pension was granted to Father ——— for the benefits conferred upon Peru by his successful crossing of these breeds. Mr. Ledger, among his flock of 276 Llamas, Alpacas and Vicunas, had one male and two female Vicunas. 'Tis the great results which a successful experiment of the cross between these breeds that I look to, as producing a

wool hitherto unknown quality and fineness. This fact of their crossing and breeding is too well established by experiment in Australia to leave the subject in any doubt as to its entire success to the third and fourth generation, and of course for any number of years. I have written to London for all the information to be obtained there of the testing of Mr. Ledger's management and all his experiments in Australia. When that information reaches me, I shall be happy to place it at your disposal. I am deeply flattered by the high appreciation of my individual efforts to introduce this valuable wool into California, and the interest it is exciting in this intelligent and most enterprising community. I feel quite sanguine of obtaining one or more female Alpacas to replace the one I lost. I am confident of being enabled during the coming spring and summer to solve the question of crossing the Vicuna and Alpaca with the Saxon sheep—especially as Mr. Brannan has with great liberality promised to send me as many of his best flock as I may desire, as soon as the proper time arrives.

I am most agreeably disappointed to find all of the animals, on turning them out to graze, show such entire docility. Billy, the male Vicuna, after his first run, became quiet and grazed with the others, without showing any disposition to ramble or be mischievous. I procured five small sheep on my arrival here, and after two days herding in the pen with mine, they all appear to be as much attached to each other as though of the same species. I am quite satisfied that the Alpaca and Vicuna require little or no care in herding them, but driving them up at night. A very low fence would prevent their straying, unless frightened. In fact, they are much less troublesome than the same number of our sheep or cattle to herd. The successful crossing them with the Merino is all that is now wanting to decide the entire success of my experiment, and render their introduction of inestimable value to California.

Truly yours, S. B. BISSELL.

Navy Yard, Mare Island, Cal., March, 1863.

Alsike, or Hybrid Clover.

This species of clover has been termed hybrid from its being intermediate in appearance between the common red and white clover. The seeds were originally introduced into Britain from Sweden a few years ago. It is said, however, to be found growing wild in Finland, Denmark, Germany, France, the northern parts of Italy, and Portugal. It is likewise partially cultivated in Denmark, Flanders, Finland, and some of the German States, where its hay is generally mixed with straw; in which state it retains its color and smell, and never moulds. This is a practice that might be adopted in California with great advantage, in place of burning, or allowing good wheat straw to rot in the field. A load of half dried alsike clover mixed with a load of good sweet wheaten straw would impart its flavor and some of its juices to the straw so frequently wasted, and form admirable winter forage, if cut up together. In fact, we are strongly inclined to believe that in the climate of this State the alsike clover might at once be carried in the green state and stacked with alternate layers of straw, provided that, in the course of stacking, it was not pressed too close in the first instance. We have known the practice of stacking green vetches and straw in alternate layers, prove remarkably successful. Baron Wrangel, of Akerby, in the province of Nericia, who cultivated this plant more than twenty years, states that if sown on well managed land of not too strong a nature, it will yield a crop of hay of from 360 to 540 imperial stones (5,040 to 7,500 lbs), for ten or fifteen years successively, but the land must not be grazed by sheep or horses the first two or three years. The seed is sown early in the spring, before the ground gets too dry or the wheat too strong, being sown amongst wheat or rye, and arrives at perfection the third year. In Sweden, a little timothy (herds grass) is sown with it, as when the crop is heavy, and the weather at harvesting is wet (a circumstance not likely to occur in California) it is apt to be laid. Although rain frequently falls in Sweden at harvest time, the summers in that country are generally very dry. The roots of this kind of clover penetrate deeper into the soil than those of the red or white varieties, and consequently enable it to bear the effects of long contined dry weather beyond that of the ordinary species; and as it comes from a very cold country, would doubtless be well adapted for the hill sides and elevated uplands in our mountain mining districts.

This plant throws up many stalks from the same root, which are not so strong as the common red clover, but stronger than the white, having also more lateral branches than either. The lower part of the flower is white, fringed round the upper extremity with a red ring, which gives the plant when in full flower, a beautiful appearance. All kinds of stock eat it greedily, either in a dry or green state.

This plant was described in the Swedish Royal Patriotic Agricultural Society's Journal of 1780–81, as a plant well worthy the attention of agriculturists. Its properties of growing higher, having its leaves more luxuriant, striking its roots deeper, and remaining longer on the ground than the common clovers, render it not only suitable for hay, but also for laying land down for permanent pasture; and specially well adapted for the long dry seasons which sometimes occur in California, which seldom fall short of three, and sometimes stretch to a continuance of six months without any rain falling of sufficient account to sensibly promote vegetation.

California Tobacco Statistics.

The importance of securing the home growth of the greater part of our Tobacco consumption, will be evident on perusing the following statistics extracted from the *Prices Current:*

IMPORTS OF TOBACCO DURING NINE YEARS FROM DECEMBER 31, 1852, TO JANUARY 1, 1862, AND ESTIMATE OF PRESENT CONSUMPTION.

1853.	*Average weight, lbs.*	*Lbs.*	*Total weight, lbs.*
2,129 bales	100	212,900	
19,942 cases	180	3,589,560	
8,730 boxes	110	960,300	
388 pkgs	110	42,680	4,805,440
1854.			
1,024 bales	110	102,400	
12,179 cases	180	2,172,220	
7,151 boxes	110	786,600	
987 pkgs	110	108,570	3,189,790
1855.			
1,754 bales	100	175,400	
17,543 cases	180	3,157,740	
8,295 boxes	110	912,450	
36 pkgs	110	3,960	4,249,550
1856.			
1,978 bales	100	197,800	
12,422 cases	180	2,235,960	
8,365 boxes	110	920,150	
1,882 pkgs	110	207,020	3,560,930
1857.			
870 bales	100	87,000	
7,629 cases	180	1,373,200	
5,339 boxes	110	587,290	
2,037 pkgs	110	224,070	2,271,560
1858.			
172 bbls	200	34,400	
29 hhds	1000	29,000	
530 bales	100	53,000	
9,795 cases	180	1,763.100	
3,660 boxes	110	402,600	
3,397 ¾-bxs, kgs, pkgs.	100	339,700	2,621,800
1859.			
74 hhds	1000	74,000	
50 bbls	200	10,000	
2,484 bales	100	248,400	
14,587 cases	180	2,625,660	
5,093 boxes	110	560,230	
1,743 ¾-boxes	100	174,309	
1,415 kegs and pkgs	100	141,500	3,384,090
1860.			
87 hhds	1000	87,000	
179 bbls	200	35,800	
1,645 bales	100	164,500	
22,198 cases	180	3,985,640	
5,156 boxes	110	567,160	
5,022 ¾-boxes	100	502,200	
1,751 pkgs	100	175,100	5,527,400
1861.			
26 hhds	1000	26,000	
10 bbls	200	2,000	
364 bales	100	36,400	
16,325 cases	180	2,938,500	
3,736 boxes	110	410,960	
2,378 ¾-boxes	100	237,800	
1,486 ¼, ½-kegs	60	89,160	3,740,820

Imports as specified, nine years	33,801,380
Unspecified, not known	
Average per year	3,755,700
Or, per month	312,975

Assuming stock on hand January 1st, 1862, to be equal to December 31st, 1852, the above amount must have been consumed. The population and export, however, having largely increased during the past four and a half years, say 30 to 40 per cent., the present requirement of 350,000 to 400,000 pounds per month is not an unreasonable estimate.

Death of Nicholas Longworth.

This distinguished man died at Cincinnati on the 10th February last—after a long and severe illness—at the age of eighty-one years, leaving property to the amount of $15,000,000.

Mr. Longworth was widely known for his great attention to horticultural pursuits. He was noted for the introduction of many beautiful nativs plants, in earlier days, and which have since become familiar to the gardens in the East. But his principal attention was paid to the culture of the grape, and the manufacture of wines on an immense scale. His deep interest in this subject, and also in the cultivation of the strawberry, is well known in the United States and Europe, and his views and opinions upon grape growing and vineyards were found to be true and correct.

It was the pleasure of the publisher of this paper to meet Mr. Longworth at his home in Cincinnati in 1856, passing some hours in intellectual intercourse, and enjoying the hospitality ever accorded to visitors at the mansion, and were also shown through the wine cellars yclept the "infernal regions," stored with the famous wines. He took especial delight in showing the pictures and sculpture which adorned the mansion, and of which he seemed extremely proud. The cellars were some 25 to 30 feet below the ground, being immense vaults made of stone. The wine cellar was 90 by 125 feet. The sight was one worth seeing, as all the process is carried on in the vaults, from the washing of the grapes to the bottling and boxing of the wines. There were bottled annually at this establishment 150,000 bottles, and at the time of my visit there were nearly 300,000 bottles in the cellar ripening for age.

The annual product of the vineyard was between 500,000 and 600,000 gallons, worth about $1 to $1.50 per gallon.

Few of the many strangers who have visited Cincinnati and met him on the street, would recognize in the plainly dressed, unpretending *little man*, the millionaire of Cincinnati.

But he is gone, and left a void not easily to be filled, and an honored and revered name. Thousands who have been recipients of his well known charity for years, will have occasion to remember him, while his death will be deeply lamented by the world.

METHOD OF PRESERVING EGGS FOR USE CHEAPER THAN IN SALT.—Take a quantity of unslaked lime, and put it into a vessel containing water, in the proportion of one peck of lime to eight gallons of water; stir it up well, and then put in the eggs. They will keep thus perfectly good, but must not be taken out until they are wanted for use, as they will readily spoil.

The salt. however, is considered preferable, as it will serve for the same purpose for years, or for any other use, if kept in a dry place, which should be regarded. Care should be taken that no rotten eggs are put in, as they would injure the others. Great regard should be paid in gathering the eggs, and not to let them remain long in the nest after they are laid. A good way to prevent this is, either to mark an egg and keep it in for a nest egg, or make an artificial one out of a pice of chalk. The sooner they are put in the salt after being gathered, the better. Some people preserve eggs in wheat bran—but as the bran is liable to get musty, and even to spoil the eggs, it is a bad practice.

CALIFORNIA

Wine, Wool, and Stock Journal.

"Festina Lente,"---Hasten Slowly.

SAN FRANCISCO, APRIL, 1863.

To Our Subscribers and Readers.

The present being our fourth number gives to us the opportunity of informing our readers that with its issue the four months (one dollar) subscriptions will be fulfilled on our part. In reminding our subscribers of this circumstance, we respectfully request that those who intend to continue their patronage, will, at the earliest opportunity, forward us their subscriptions for the forthcoming four months, which can be conveniently accomplished by remitting to the publisher a gold dollar piece.

The high price of paper, coupled with the considerable expenditure required for original papers and the requisite editorial staff, has compelled the proprietor, most unwillingly, to sometimes curtail the amount of matter given to the readers; should, however, the existing patronage continue, he trusts to be able to afford an amount of reading equal to that presented in the current number, and of gradually increasing quality.

The proprietor does not intend to propose making any reduction in price, nor to seek additional subscribers by holding out inducements to book-clubs, etc. He proposes as follows, namely, to continue the Wine, Wool, and Stock Journal in its present form as being more suitable for engraved illustrations. If our friends will exert themselves, and in the course of twelve months increase our circulation 5000 additional, we promise when that is accomplished to issue in each number forty pages of original reading, with from three to four engraved illustrations. It will, therefore, be to the interest of every subscriber to enlist as many of their friends and neighbors as possible, to hand their names to our list.

We need only allude to the numerous and unsought favorable criticisms which have been kindly accorded to our publication by the editors of papers published in all parts of this and adjoining States and Territories, to show that our efforts to publish original matter on agricultural subjects adapted to the special requirements of this coast, has been fully appreciated, and emboldens to ask and we have no doubt will obtain an increased circulation commensurate with the importance of the specialities which we have commenced to treat upon.

We hope to be able with the additional kind support of our friends, whose extended and continued patronage we look forward to with confidence, to be enabled to make the Wine, Wool, and Stock Journal not inferior in tone and ability to any other similar publication, whether published in America or Europe, and specially adapted to the requirements of stock raisers, farmers, wine growers, etc., etc., as well as wool, wine and produce merchants generally.

We particularly recommend to our readers' attention the articles on the formation of fat, and horse breeding; the former being the commencement of a series on the special adaptability of particular cattle, sheep, etc., for the existing exigencies of California agriculture, in order to derive the greatest amount of profit therefrom.

Buena Vista Vinicultural Association.—This is the corporate title of a joint-stock association which has filed its certificate of incorporation. The objects of the company are stated to be "the purchase of lands in Sonoma and Napa counties; improving, developing, working and cultivating the same; raising all kinds of fruit, grain, and plants thereon; making wine, brandy, and other liquors; burning lime, quarrying and selling building stone, and generally to make such use of said lands, with whatever may be found thereon, either in the shape of minerals, water, stone, or other things, as may be deemed proper and advantageous. The capital stock of said company is $600,000, in shares of $100 each. The trustees are: B. Eugene Auger, Herman Michels, Agostin Haraszthy, Adolf Wapler, Isadore Landsberger, J. Ernest Rene, Gustave Dussol and Louis G. Bruguiere.

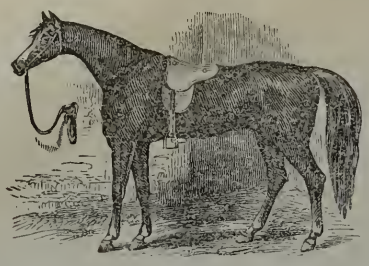
Books by Mail.—We can forward by mail, works of all kinds on Wine Making and Stock Raising. Catalogues sent on application to the Publisher.

Just received—Redding on Wines and Wine Making; Vine Dresser's Manual; Lacour on Wines and Liquors; Haraszthy on Wines; also, Tucker's Rural Register and Almanac for 1863—sent by mail post paid for 50 cents.

All American and English works on the Horse, supplied to order.

American Stock Journal, New York, (Bound,) Vols. 1, 2, 3 and 4—now ready; a valuable addition to any library; sent to any part of the State, by addressing the publisher of this journal.

The California Steam Navigation Company, we learn, will extend every facility to wool, hide and grain producers in the country to ship their freight by this line. The price is $20 per ton for ordinary freight from Red Bluff and the northern section of the State. A ton in weight of wool will occupy seven tons of cubic measurement, yet the Company propose to charge the farmers only by weight, instead of measurement,—very reasonable, we think, and worthy the attention of wool growers and others. The New York custom is to charge *three times* the freight for *wool*.



On Breeding and Rearing Horses in California, No. 2.

At present it is complained that although the horses of England are proved to be the best in the known world for the uses for which they are raised, the hereditary and apparently constitutional predisposition to many forms of disease is on the increase; whilst it has been remarked that animals exported to Australia (I give the fact as a case in point) and actually developing at home those hereditary infirmities, have recovered complete health there, and have not in their progeny perpetuated the predisposition to disease.

Such facts as these are worth the attentive consideration of all desirous of identifying themselves with the future advancement of California, and I throw out the suggestion, although I do not see that there is need for further pursuing the subject in this place. I may add, however, that I consider California to stand in this very matter upon a different footing from any of the other states of the Union, inasmuch as her climate and her soil both resemble particularly the climate and soil of the eastern portion of the Old World, the accepted native land of the horse, which is, I think, demonstrated by the resemblance, both in appearance, and in qualities of endurance, between the common eastern horses of the old continent, and what we are accustomed to call the "native" horse, or Mustang of California. "Run out," ugly, and uncouth, as the general bulk of them seem, yet their quality belies their appearance, and in instances where they have been bred with care, and attended to, many individuals may be found of surpassing beauty, infinite intelligence and docility, and wonderful speed and endurance. Supposing then that the soil and climate of California is almost similar to that in which all authority allows that the horse came *naturally* to the greatest perfection, and which seems to possess some innate adaptibility to the animal's constitution, may we not carry our analogical reasoning somewhat farther, and readily credit that here also may exist in the soil and climate those peculiar attributes qualified to perfect, resuscitate, and re-invigorate any natural quality run out by means of a long course of artificial, civilized, and stimulated treatment, to which, in the hands of men, desirous of producing to the utmost the perfection of extraordinary, it may be unnatural powers, the horse of nature may have been too much, or prematurely exposed, and by which means diseases and disorganizations unknown in his wild state have been developed and propagated. I think that we may, and I infer, that in this country, with these advantages and bringing to bear on the pursuit similar intelligence, perseverance, means, and ability, to that which has rendered England (a country by no means so suitable naturally) the first horse breeding country of the world, we ought to become eventually the superior, even of her, and noted for having the most perfect breeds of nearly all varieties of the horse.

Without pretence, then, of any very great ability to explain the details, or different modes of management by which such a desirable result may be in time brought about, I may be permitted to mention what appear to me, both from my own small experience and my understanding of the experience of those who are generally allowed to be authorities on the subject, grave and fundamental errors in the course many of our breeders pursue, and to try to point out remedies for the mistakes made in the past, and the way to avoid similar mistakes in future. I am well aware that where my opinions clash with the received views and established ideas of a large portion of our community, I shall be liable both to contradiction and misinterpretation of motive; but no fear of that will prevent me stating honestly what I think to be the truth. I shall be ready at all times to modify or change my views, when convinced by my own experience, or that of others *verified by facts*, but although in California I have found point blank assertions very common, and in many instances passing current almost universally, I do not find much that is very loudly asseverated capable of being corroborated by satisfactory proof, either in former days or the present, but what I shall here bring forward under the head of facts will be only such as have been repeatedly proved, and are now received as axioms, in countries which have passed through, long years ago, the present phase of our California existence, whilst as to bare assertions I may make, based on what I may have seen myself, or on what I believe, I shall only advance them for consideration, subject to the proof of each man's own expe-

rience, and trusting that whether that be confirmatory or contradictory of what I say, my statement will be viewed as intended to elicit truth, rather than to mislead.

Before entering upon the consideration of the details of horse breeding, and the different varieties of of the animal to which the breeder may find his interests call his attention, it may not be inappropriate to introduce the subject by a few general remarks on some outside matters which will be found to exercise much influence upon the success with which any man will become a breeder of horses, either in California, or any other place. I shall dismiss with a word the occasional insanity which sometimes puts it in the head of outside people, who have by some chance become possessed of a good mare which they are told is worth breeding from, to fancy that without any of the necessary adjuncts, of farm, personal knowledge of the subject, or skill and ability of others devoted to them, they can *profitably* breed for their own use, or for sale, horses. If any such horse fanciers are blessed with superabundance of the world's goods which they are disposed to expend innocently in the gratification of a noble taste, they can certainly do it agreeably but not profitably to themselves, pursuing their pleasure by means of hiring the services of those who are situated properly for it, and have the ability to pursue the business. But if on the contrary, of straightened means, and having no object in view but profit, I think one experiment will be sufficient to demonstrate that horse breeding to persons so situated is a luxury they must deny themselves; they cannot pay the charges of the mare and foal at pasture, and a colt eating his head off for several years, for by the time the young thing is fit either to work or to be sold, the discovery is generally made that it has cost considerably more than it will fetch, or is worth. But turning to the legitimate "horse"men the farmers whose business it ought to be either on a small, or a large scale, to keep up the supply of horses for the use of the country, let us see what they have got to consider before they enter into the business. Profit should be their *sole* consideration, and if they cannot breed and raise them profitably either to sell or to use they should avoid them, and had better buy such as they require for their labor, of others, who *can* raise them to a profit, and they will thus aid in keeping the different items of agricultural pursuits divided, as they must perforce become, before they will be properly remunerative to those engaged in them. Now I think the main thing for a farmer to consider is, first, has he got land which he cannot more profitably use than in keeping horses, and secondly, if he have got such land, to what description of horses is it best adapted by its physical nature of formation, quality of soil, facilities for shelter, water and the like; and thirdly, has he got the pecuniary means, and can he give the necessary attention properly, or in other words profitably, to bring to maturity the description of animal his land is suited for? For instance if his farm be situated amid some exposed rough mountain ranges, where at the best of times the scanty soil produces but a sparse herbage, and his lowland is all kept under crop, he will scarcely fancy that he can bring to any perfection the bulky animal fit for heavy draught, or rear a fine saddle horse by a cross of the thorough-bred, if he turn them out for half the year to find their own living on such short commons; he may however raise a few mustangs for "Vaquero" purposes, and he will do well to confine his ambition to making them good ones. But again, suppose the owner of five or six hundred acres or more of rich alluvial bottom, and fertile sheltered side hills, growing the heaviest crops of grain and the richest natural grass both of the juicy meadow land, and the nutritious but not gross upland growth. He has the place *par excellence* for the horse breeder; during summer on the one soil he can supply the huge growth and porous bone of the heavy draught horse, on the other the nervous energy and vitality, and the condensed bone of the thorough-bred race horse, or his produce the half-bred saddle, buggy or carriage horse, whilst winter sees his farm well stored with rich, nutritious hay and grain, to bring to their full strength and vigor of constitution the animals of those improved breeds, which have been made what they are by great care, and plentiful feed during many generations, and will rapidly deteriorate under different treatment, of which ample proof can be adduced in California. The farmer having then settled in his own mind, that it will be profitable for him to breed horses, and what kind he can breed to greatest profit on his land, it remains for him only to make up his mind *how many* he can keep in proper condition during the season of grass, and provide with the necessary hay and grain, to be fed to them under proper shelter during the inclement season of cold storms, and pelting rains; this last item the comparatively short duration of our California winters makes of comparatively small import (as to cost) in the account, and for this reason many people think it can be dispensed with altogether, which is one of the errors of our prevailing

California system alluded to at an earlier point, and which to my thinking has produced already considerable disappointment to many who have bred horses, for which they have not been slow to blame many causes besides the right one, which would only have been blaming *themselves.*

With these prefatory remarks on general principles, I shall now proceed to review the different breeds and classes of horses which have so far been cultivated in this State, making such remarks under each head both as to breed, and adaptability for service, as may occur to me.

First, as the breed in my opinion the most useful for the improvement of beauty, and general qualities, I shall first take up that breed of the horse conventionally known as

THE THOROUGH-BRED,

or race horse of pure descent through a long series of generations, traceable by authentic proof in the records of the stud books, back to the early horses famous for their running and lasting qualities ; and which were first bred in England by various crosses of the imported Eastern horses, on such horses as they then possessed there, regarding which there can be little of a reliable nature proved or known. Regarding this term "Thorough-bred," so many misconceptions and mistakes are current amongst our breeders, farmers, and people connected with the use of horses generally, that I almost despair of making the term and its proper accepted meaning (although really most simple) clear and plain to general understanding. I shall try to do so however, in such a way as I think cannot be mistaken, though it may appear absurdly particular and at length, in the eyes of those who have always understood the designation in its proper and original sense, *they* will excuse me, as they can hardly fail to know how frequently the term is misapplied, and the numerous misunderstandings which the *mal-a-droit* application of the word creates. "Thorough-bred," then, signifies, and *only* signifies, a *race horse* of pure and proved descent, whose ancestors back so far as they can be traced, (and which should involve a clear description of many generations) were race horses, recorded in the stud books. The proving of *any other* blood but this in a pedigree, incapacitates the animal from claiming to be "thorough-bred," although many of the very best pedigrees *end*, after being carried back for numerous generations, with a dam as "unknown," that is, it was unknown that she was anything else, *but a pure race horse*, of those old days. The term has been established by conventional use only, and hence many of the current errors regarding it. The correct use of it, intends to convey that the animal spoken of, is a pure bred *race* horse, bred "thorough," or "through," a long line of ancestry who were all pure bred race horses, without a cross of any other kind of horse, and by custom the association of the term with running horses, and running horses only, has at length rendered it the name for designating, by a single word, the pure-bred race horse, and applying the word to any other description of horse, or animal, is a contradiction, and creates confusion.

For instance to speak, as many do, of a thorough-bred draught horse, a thorough-bred trotting horse, a thorough-bred Clydesdale, or a thorough-bred Morgan horse, gives the idea, not as is fancied by those using such terms, that the draught horse, the trotter, the Clydesdale farm horse, or the Morgan, are pure *of their own kind*, but that they are draught horses, trotters, Clydesdales, or Morgans, *of pure race horse blood*, the absurdity of which misnomer is apparent ; these horses may be all pure as they can be, of their kind, but they are assuredly not race horses, nor are their ancestors registered in the records of the turf, nor do they trace back to the Arab or Barb blood of early times. The term to apply to them is "pure-bred," which at once makes the distinction, and is not like "thorough-bred," the word in use to designate *any one particular breed.* We say correctly a pure Morgan, Clydesdale, draught horse, even a pure thorough-bred, using thorough-bred only as another word for race horse, but I repeat, it is an error, to apply the word "thorough-bred" to any other description of animal than the race horse, its meaning is there fixed by long conventional use, if we seek now arbitrarily to alter it we only create confusion, and have terms which should be quite generally and plainly understood liable to vary with the caprice of every one, the consequence of which must continue to be mistakes and misunderstandings of the silliest nature, such as I have seen frequently occurring here. Having then, I trust, made it perfectly clear that when I shall speak of the thorough-bred, I mean only a horse of the breed which has been bred and kept perfectly pure for many series of generations, for racing purposes, I shall now go on to remark on the various qualifications for which this breed of horses is remarkable, and the reasons why a larger or lesser proportion of these qualities infused into the various kinds of horses we have here to use for breeding, will be found to improve the majority of them for all useful purposes.

The questions of particular details of management, and the mode of crossing to best advantage will have to be discussed from time to time as the ramifications of the subject may bring them up and give them prominence.

[To be continued.]

The Country for Coarse Wooled Sheep.

The rapid increase of population, which is now taking place on the more inhospitable parts of the Sierras, will speedily make the question of supplying it with butcher's meat, especially Mutton, a very important one. We have no doubt but the time is rapidly approaching when the breeding of sheep, adapted to these peculiar situations on the upper flanks of the Sierras, will not only become a remunerative, but very profitable occupation.

Under this opinion, we thought some observations, made at the Kendal Cattle Show, (which meeting has already been alluded to in reference to the Milking Machine) with respect to Coarse Wooled Sheep, may prove valuable :—

Mr. Edward Busher said—He was greatly obliged to Mr. Cropper for the kind manner in which he had proposed the toast, and for associating his name with the interests of the town and trade of Kendal. His thanks were also due to the company for the enthusiasm with which they had received the sentiment. He was sorry that the duty had devolved upon him in consequence of the indisposition of his senior partner, Mr. J. Whitwell, who, had he been present, would have done it in a more efficient manner. For himself and partner, however, he begged to assure them that so far as they had contributed in any way to the success of the exhibition of that day, they were only too happy to have been able to do so; their interests being so thoroughly identified with the general interests of both the Agricultural Society and the Kendal Farmers' Club. With the permission of the chairman he would occupy their attention for a few moments on a subject which was of the greatest importance to the agriculturists of the northern counties, as well as to himself in particular. Mr. Busher then entered into a very elaborate statement of the quantity of wool produced in the counties of Cumberland, Westmorland, and North Lancashire. He estimated the quantity of Herdwick wool annually grown in these counties at about two millions of pounds, of Blackfaced wool about the same quantity, and of Leicester, Cheviot, and South-down at about one million pounds. Taking the average value in the year 1852 of Herdwick wool at the rate of 7d. per lb., of black-faced at 6½d. per lb., and of fine wool at 1s. per lb., on the quantities before mentioned, it would realize a sum of £162,500. Then coming ten years later, and taking the average prices of the same class of wools in the same district for the present year 1862, and still estimating the produce at a similar quantity, he found that Herdwick at 11d. per lb., black-faced at 10½d., and fine bred wool at 1s. 6d. per lb., would give a money value of about £254,000, showing a difference in favor of the agriculturists of this district of no less a sum than £91,666 (hear, hear). In addition to this, there was also the skin wool, which was out included in the estimate just given. The quantity of wool annually pulled from the skins by the fellmongers he estimated at 125,000 lbs. weight, the value of which would this year amount to nearly £7,300, taking the average price at 1s. 2d. per lb. for all classes. Then adding together the value of the wool shorn and pulled during the past year in the district to which he had referred, it would be found to have realized a sum of upwards of £327,000. In conclusion, Mr. Busher wished particularly to draw the attention of the members to the important fact that the difference which a single penny per pound in the price of their wool would annually result in either a gain or loss of no less a sum than £240,000.

The country to which the preceding remarks allude, is the most elevated, cold, wet, and mountainous tract in England: it was originally occupied by what is known as the black-faced sheep, such as are now found on the Highlands of Scotland. Nearly a century ago a very singular race of sheep, said to have been driven from a vessel wrecked about that time on the coast of Cumberland, was observed by the neighboring farmers, to possess peculiar faculties and instincts, with reference to the weather, etc.,—and recent observations have proved that for such inclement situations as those of the district under notice, possess a power of resistance to the effects of cold and hunger, beyond any other race. It is only about 30 years since these properties drew general attention, and in consequence, this race, the "Herdwick," attracts, among these mountain farmers, as close an attention to breeding as South-downs, Short-Horns, etc., etc., and are rapidly displacing the old black-faced breed. The "Herdwick" is remarkable, as possessing a rib additional to that of other breeds; the mutton is remarkably fine, approaching that of fat venison; the wool is coarse, and chiefly used for the manufacture of horse cloths, and very coarse carpetings, for which purposes they might equally be employed in this country.

The prices above alluded to, refer to washed wool "Herdwick," clip about five pounds per fleece.

Berry and Vegetable Wines.—We have received from Messrs. Graves, Williams & Buckley, the agents for the different manufactures hereafter named, some choice samples of the following wines, namely: Blackberry and Rhubarb, from Woolsey, and Raspberry, from Comins, as also some very fine White Wine from the vineyard of John Rowland. As a pleasant cordial, possessing a particularly pleasant aroma, few drinks can be found to equal the raspberry wine of Mr. Comins, while the blackberry makes a very pleasant febrifuge and sudorific when taken warm prior to retiring for the night. The rhubarb wine may be drank at any time with advantage, being particularly pleasant, cooling and healthful.

On the Accumulation of Fat in varieties of Stock belonging to the same Species.

BY T. ROWLANDSON, F. G. S. L.

The notes from which the following paper is written were drawn up some time ago, and intended as the basis of a paper for the United States Stock Journal. They were jotted down as the memoranda for a theme on the above head owing to the appearance of some complimentary remarks made by an able writer in that journal, under the *nom de plume* of "Tamworth," which had been called forth by a few articles on California sheep husbandry, written and inserted in that periodical by the writer of this paper. The Stock Journal being temporarily suspended, and as longer delay may occasion much of the interest to pass by, I avail myself of permission granted by the proprietor of the California Wine, Wool, and Stock Journal, to lay my views on this interesting subject before its readers for the exercise of the criticism of stock raisers generally.

It would occupy too much space to enter into all the physiological details connected with the subject, deeply interesting as they are both in a scientific as well as a pecuniary aspect. I shall, therefore, confine myself to the salient points and broad features such as every practical observant man may make for himself.

Marked difference in the points whereon fat is deposited by forced or improved breeds of animals and their unimproved ancestors. Whether our observations are made upon horn cattle, sheep, or pigs, the following rules hold universally, namely, that while the improved or rapidly fattening and early maturing varieties of each species have the fat deposited chiefly on the external, in the less improved kinds the adipose matter has a tendency, in the first place, to become deposited in the internal parts, or what is known as the offal fat, before it begins to display itself in the exterior points, it may also be added, that pretty nearly in the precise ratio in which one or other of these tendencies prevail does the maturing power exist especially for the market, being hastened in the former and retarded if the latter property predominates, the converse of this, however, will be found to take place if we look for hardiness of character, such as the exigencies which the animal may at times be called upon to endure in the form of insufficiency of food, or to bear the inclement effects of the weather, in the present state of California agricultnre, and for some time to come, both these evils will occasionally occur. This brings me to to the consideration of the next and very important point in the inquiry, uamely:

Is high bred or hardy stock better adapted to the existing requirements of the N. W. Pacific Coast? Before attempting an answer to this question, I will briefly examine the rise and progress of stock to its present artificial condition. Ample and trustworthy records exist that English wool was in great request among the luxurious Romans for the purpose of manufacturing their most magnificent robes. This wool was obtained from the Ryeland and Morfe Common sheep, the former is nearly and the latter (notwithstanding it was the finer wooled animal) I believe is entirely extinct, excepting they may perhaps be seen in a degenerate form in the Cannock Chase sheep of the present day. In other parts of England, such as the rich pastures of Lincolnshire, the banks of the Tus, Romny Marsh, ect., etc., other varieties of a larger kind, with long wool, are found to prevail, but the whole of them possessed these characteristics in common of maturing slowly and chiefly depositing the fat in the inside in place of the outside of the body, no considerable amount being formed in the latter until the animals had arrived at full maturity, that is, about five years of age, and then it was found on slaughtering the animals that a very large proportion of the fat was deposited internally. "*This fact, although inimical to the farmer's interest, is a wise provision of nature, for it is by the consumption of fat that animals exposed to want and cold are enabled to maintain the temperature requisite to support life, when from any cause bereft of adequate food and shelter.*" To the above quotation from The Sheep Breeder's Guide, the writer alluded to (Tamworth) has remarked that there is a little inconsistency respecting a "wise provision of nature" being inconsistent with the best interests of the farmer, and whilst fully concurring in the general views laid down by me in the work quoted, and expressed in a most complimentary manner attributes the discrepency to a probable "slip of the pen." I am not disposed to admit the "soft impeachment," although I am willing to concede the fact that my meaning would have been made more clear had a fuller explanation been given of the reasons for the apparent paradox which, however, would only be paradoxical in extreme cases such as those which may and do occur when the question becomes one of not what animal will pay the best, but what breed or

variety is the one which will sustain life with food deficient in quality and quantity combined with an inhospitable climate; as is found to be the case where the Black Face and Herdwicks alluded to in a former number of the WINE, WOOL, AND STOCK JOURNAL flourish, but where a Leicester Southdown of any similar kind would perish, to say nothing of a Merino or other tender species. Some day this question will have to be decided by the farmers on this coast respecting the breed best calculated to yield a profit on our elevated vallies and sierras, in such positions there cannot be a doubt but the old unimproved, hardy races that deposit their fat chiefly internally and mature slowly, will prove the most suitable, or in other words the most profitable.

The character of the stock cultivated in Britain up to about a century ago, varied according to the district, the experience obtained during nearly two thousand years having pretty well defined the kind best adapted to each locality, in the course of which period the modifying influences of pasturage and climate have necessarily produced permanent effects in the form of well defined varieties, each being the fittest to its own peculiar locality. Such was the general position of sheep stock in Britain up to less than one hundred years ago, about half a century prior to which the turnip was introduced into field agriculture by Lord Townshend, for which benefit he obtained the nickname of Turnip Townshend; contemporaniously with the spread of turnip cultivation the demand increased for additional wool and mutton, partly owing to increasing population, and partly, though in a less degree, from the increasing means of the laboring classes to obtain more food and better clothing. The introduction of turnips and other species of what are called green crops, as distinguished from pasture and meadow, greatly increased the farmers' means of providing winter food, not only for sheep, but also other species of stock, and so vastly has this been extended that an immense breadth of land in England is now capable of sustaining far more stock in winter than the richest pastures can during the summer. The approach to this state of things has, however, only been gradual, the commencement of green cropping originating a century and a half ago, the attempt to obtain animals that would mature early and fatten readily on the least amount of food, dating from the days of Bakewell, or less than a century, the extension of which can scarcely be said to have become general more than half a century. Until ample means existed for supplying sheep with winter food, it would have been absurd to have attempted to rear animals incapable of bearing the pinching cold and scarcity of food, at that time the constant accompaniments of the winter season, for although abundance and quality of food will in some degree replace the absence of shelter, and protect to a certain extent from the destructive effects of cold, all this extra aid would be needed in order to sustain life in animals whose character was so far changed as to have its fat deposited on the exterior in place of the interior parts, the latter position owing to its general relation to the viscera being better calculated not only to retain the vital heat evolved by its consumption, but also possessed from its greater proximity to the elaborating viscœ, the additional property of maintaining that heat at the least expenditure of force, the firmer character of the exterior muscles in animals of the old or so called unimproved breeds, adapted them better to sustain the hardships of cold, not only *per se*, but in a secondary manner of scarcely less importance, owing to the faculty they thus possessed of enduring a greater amount of exercise without being distressed, the force so expended developing simultaneously the heat or vital warmth so requisite to the animal's preservation.

If greater thrift was used by English farmers a century ago in preserving their straw and pittance of hay for the winter maintenance of their stock, their actual position so far as shelter and inadequacy of winter food, varied little from that of the California farmer of the present day. It is not necessary, however, to draw minute comparisons; what I wish to inculcate is, that in the present position of California agriculture, I do not conceive that the exclusive breeding of very high bred stock will be the most profitable, but its admixture will be most useful.

[To be continued.]

Milch Cows.

THE Cow proper for the dairy differing much from the fattening cow, a very peculiar description is required. It is scarcely possible that she can vie in flesh and appearance with the latter, which only gives a small quantity of milk, and whose food is therefore principally appropriated to the fattening of her. The draining of nutritive juices by milking must, with very few exceptions, keep the milch cow low in flesh; whilst the cow with an aptitude to fatten will quickly decline in milk; for although she may for a few weeks give a proper quantity, she will speedily fall off after calving.

The features of the best milch cows, speaking gen-

erally, are as follows:—A small head, thin chap; the eye not particularly quick, nor yet gloomy; the horns small, standing high on the forehead or crown; the neck very thin and low, or what is termed *ewe-necked*, viz.: hollow from the horns to the shoulder; little dewlap, very narrow in the breast, the same at the shoulder; light in the fore-quarter, and a hollow at the back of the shoulder, with little flesh along the chine; sometimes tolerably well formed on the hucks and rump; thin in the thigh, and very frequently crooked hind legs, or, as it is called, *sickle-hammed;* much longer in the fore legs than in the hind ones; better let down in the hind parts than before, *but very little inclined to flesh anywhere;* the hide very thin; a small tail, with little hair upon it; and the less coarse hair on any part the better. Yet, after all, it is possible a cow may be so formed as just described, and not very good for milk without the following properties, which must be particularly attended to:—The udder should be of equal substance in every part, and not remarkably large; for if it be, it will be more inclined to flesh than to milk; but there must, nevertheless, be substance, sufficient to retain a proper quntity of milk, though when the the milk is drawn from it, the more this substance is diminished the better. Before the cow is milked, although the udder may be hard, every part of it should feel alike, that is, not in lumps. The skin of the udder should be every thin, the paps standing square, and at equal distances very way; they should not be very large, or considerably thicker near to the udder than at the end (which is termed *bell-papped*), but nearly of the same substance throughout, being at the top or end rather drawn to a point; for when a cow's paps are very broad at the extremity, the holes are often larger than they ought to be, and she is apt to drop her milk; cows sometimes lose in this way from one to three or four quarts daily. The show of her udder should be nearly of equal size before and behind, but if any difference, the largest before; for when a cow has the greatest show behind, and gives a greater quannity of milk out of her hindmost paps, it is an almost certain indication of her declining in her milk in a short time after calving; on the contrary, when the udder puts forwards, the cow gives as much or more milk before than behind, the milk veins being large and strong, particularly that vein which runs from the udder to to the huck, and from the udder to the navel shows for a long continuance of milk.

TOBACCO, FLAX, HEMP, ETC.—We will feel obliged to all engaged in the cultivation of the above, or cereals, to preserve handsome specimens for us, as we wish to make up a collection to forward abroad.

To Make Stilton Cheese.

In accordance with a promise made in our first number, we proceed to give an account of the mode of making this superior variety of cheese, which is unquestionably the finest kind produced in the world. An opinion prevails in England that a different mode of management is required according to the character of the soil. A personal experience and investigation has satisfied us that excepting as regards its influence on the butryaceous character of the milk so produced, an effect to be more frequently traced to the breeding of cows rather than soil, we have failed to see any material benefit derivable from the deviation from ordinary practice. One of the principal annoyances attendant on making Stilton cheese is the "poring" or swelling out of the cheese after being pressed. This rising is prevented by adopting the following system: Take about one fourth of the quantity of milk intended to be used for the cheese, let it stand until it becomes slightly sour or coagulated, or as it is called by dairy-women, "loppered," the cream from which, however, should be carefully removed before the milk had become soured, this cream should be carefully preserved for subsequent admixture. The day before the sour milk is made into curd, prepare a quantity of milk fresh from the cow, into curd; when properly drained, put the curd so made into an earthen-ware vessel, adding a sufficient proportion of cold, clear, spring-water, and let it stand for 24 hours; then take the loppered milk and add to it the cream that had previously been removed from it, and some additional cream if you want to make a very rich cheese, though generally speaking its own cream will suffice, add to the preceding one fourth more milk about twelve hours drawn, or what is commonly called *one meal old*, together with *its* cream; slightly warm a little sweet milk, and put the rennet to it, the cooler the milk and the smaller the quantity of rennet, provided it suffices to change the milk into curd, the better; a temperature which is known as milk warm, would probably suffice in California, especially during the warm season; the following remark not only applies to making Stilton, but to all other varieties of cheese, namely, that the smaller the quantity of rennet, the cooler the milk, and the slower the process is performed, provided the whole of the curd and butter are coagulated in combination, the richer will be the cheese. The different sorts of curd must afterwards be mixed very carefully, this done, the whole must be put into a vat deep and narrow (Stilton cheese are usually about 8 inches diameter and 12 to 14 inches high). The

weight required to press the cheese is but small, a stone often being employed for the purpose; they, however, whilst under press, require frequent turning. The longer this kind of cheese remains in press under gentle pressure and frequent turning, the more even and better will the cheese be. One of the objects of letting the loppered curd remain so long in water is that by so doing it is said the subsequent cheese more readily obtains that thorough vein like character of blue mould, so much esteemed by the English epicure; if, therefore, the blue mould is not desired, and we do not see that it really adds any pleasant feature to the cheese, a simple washing of the curd will suffice. We shall be greatly deceived if California is not capable of producing cheese superior to the bulk of Stilton. We may add that persons with epicurean palates saturate their Stilton with Madeira or Sherry wine a month or two prior to use.

Tobacco.

We have been favored with the following article from an esteemed correspondent in Grass Valley, which will be of some interest to those engaged in the growth and culture of tobacco in California. The writer says:—

"Many in this section are already engaging in its culture, and all information you can favor your readers with upon the subject will be read with interest—as some are debarred by the idea that climate, dry seasons, and want of honey-dews is necessary, as well as too much labor. These ideas will sink when they find the labor very little more than cultivating cabbage or corn, as they will see the mode of culture, and that given by an old tobacco buyer. I purchased tobacco in Kentucky for 20 years, from one to two million pounds, part packed in hhds. and part loose, say in the stock, and tied up in the hand and delivered at my tobacco factory. Every summer and fall I was in the tobacco fields, and afterwards in the tobacco houses, before I purchased the various crops. Of course I became acquafnted with the best kinds of tobacco, its culture, time of cutting, as well as all other management necessary to a good crop and good yield, from the setting out the plant, to worming, suckering, pruning, and topping, etc. I am interested in the growth and prosperity of California, as much as any other living man. We have the climate and soil to raise and produce everything we require, and it is perfectly absurd for us to be sending away millions of dollars to purchase what we can produce at home, and have it fresh and better than we can get it from abroad."

Below is the article alluded to, which will be followed by others, from time to time, during the season, giving the tobacco grower the proper items in regard to having his tobacco, pie ball, brown, yellow, red, or green color:—

Editor Wine, Wool, and Stock Journal:—First a few logs, rolled together and burned, and while burning should be rolled over the ground intended for the plant bed, and when burned sufficient should be spaded up, raked fine, and the seed sown same as a cabbage bed—raked in and trodden down loose, and covered with dry brush. When the plants are large enough to set out, should be pulled up and taken to the field to be planted, and if a small kind of tobacco, the plants should be placed 3½ feet apart. If the plants are of a large, long leaf variety, they should be set out *four* feet apart, and plowed and cultivated the same as cabbage. It must be examined, and if any worms have made their appearance, they must be pulled and killed; and the lower leaves must be pulled off, which is called priming. The suckers which grow out near the leaf must be pulled off as fast as they grow out. The next process is topping or budding. When the tobacco gets leaves enough on the stock, or as many as the cultivator wishes, he takes the top off, which is all the work necessary, but pulling off suckers and killing worms, if any, plowing, and irrigating (if necessary) by running water once a week between the rows of tobacco. When the tobacco is sufficiently ripe it must be cut near the ground, or below the lowest leaf stock. As soon as one cutting is over, the tobacco is placed on what is called tobacco stocks, and thence on the scaffle poles, made by driving forks in the ground, and putting round or split poles in the forks, four feet apart. The tobacco is crowded on this scaffle, and remains until it is well wilted, after which it is hauled to the barn or tobacco house and hung up on the poles as close as it can be crowded. This is for the purpose of coloring. When it has the proper color, as suits the taste of the farmer, he thins it on the sticks, to keep it from house burning, and then makes a fire under the tobacco, and cures it up—never slacking the fire until the tobacco leaf, stems, and stock, are entirely cured.

The next step is, as soon as soon as cured, to let it hang until a rainy day, or soft weather, when it begins to get in order, and when the tail of the leaf becomes soft three or four inches, the tobacco must be packed down—straw under, all round and on top, then a log or two put on the back, where it remains ready for stripping, which means stripping the leaves off the stalk, and tying the leaves up in small or large bundles. Tobacco raisers call it tying up in hands. When tied up in the hand, it is rehung on the tobacco stick to dry and straighten—then the first soft spell of weather it must be struck down and covered up with straw, where it remains ready for packing in the hogshead, box or bale, or to be hauled off to the manufactory. If the tobacco is packed down in the right order, it will keep sweet for years.

Tobacco can be cured in California without fire, but in curing, it must take dry and soft weather. Consequently, it comes and goes, and every time it comes and goes, it loses in substance. The best tobacco growers in Kentucky, Virginia, Tennessee and Missouri, have tight houses, with a flue running throug the tobacco house, and then no smoke affects the tobacco. Brittle Stem, Blue Pryor, Big Frederick, or White Stem, is the largest and heaviest tobacco that grows.

Your obedient serv't,
JOHN P. LITTLE.

Acknowledgments.

Catalogues of Premiums for the International Agricultural Exhibition, (with the co-operation of the German Agricultural Society,) to be held on the Heiligeveistfeld at Hamburg, on the 14th, 15th, 16th, 17th, 18th, 19th and 20th of July, 1863. We sincerely hope that California will be represented on the occasion.

M. Gray, Music dealer, Clay street, has laid the following music on our desk: *The Lovely Watcher*, ballad; *Bridal Veil*, schottisch; *Dublin Bay*, song; *Minnie Adair*, ballad; and *Abraham's Daughter*. He will forward music by mail to any part of California.

H. H. Bancroft & Co., Montgomery street—*Bancroft's Map of the Washoe Silver Region of Nevada Territory*—scale, one mile to the inch; *Bancroft's Guide to the Colorado Mines*, containing an elaborate map of Southern California and Western New Mexico, with tables of distances; *Bancroft's Map of the vicinity of Richmond, and the Peninsular Campaign in Virginia; Colton's Topographical Map* of the seat of war in Maryland, Virginia and North Carolina.

Pedro Ximenes Vine.

We have several times been requested to give some information respecting this species of vine. We suspect from the name, that it is the same vine which yields the wine so much esteemed in Spain, under the name of *Pedro Ximenes Wine.* It is chiefly cultivated in the *Alpujarras*, or *Alpuxaras*, a mountainous district in the province of Granada—in the South of Spain, to which the Moors were banished after the destruction of their kingdom. The slope towards the Mediterranean, from Almeria to Malaga, extends about 17 leagues in breadth. The range of mountains is composed almost wholly of clay slate, and is found to be highly suitable to the culture of the vine. Perhaps no section of the world, of equal extent, produces such a quantity of wine of excellent quality, as the Alpujarras, yet owing to the defective character of the roads, perhaps on no part of the earth are superior qualities of wine so abundant and cheap, as in some of the remote parts of the Alpujarras. We believe the *Pedro Ximenes* vine would answer well on our porphyritic mountains, such as are to be found in the vicinity of Sonora, and other parts of Tuolumne county. To such as are favorably placed for its cultivation, we strongly commend to their attention the "*Pedro Ximenes.*"

FINANCIAL.

A VERY earnest and most patriotic Californian, and a warm supporter of the WINE, WOOL, AND STOCK JOURNAL, has forwarded to us a long article on currency, which we regret that our limits will not permit us to insert, even if the general character of our journal would justify the occupation of so large a share of space. Still less are we in a condition to spare room to reply to it, as we would like to have done. In order to show, however, that we are not afraid of criticism, we at great inconvenience have made room for the insertion of the following extract:

PUBLISHER WINE, WOOL, AND STOCK JOURNAL:

DEAR SIR:—The value of your journal is being daily more and more highly appreciated, but like all new educational enterprises requires time, patience and perseverance in well doing, to insure for it a high and important status among its class of periodicals.

In your February number an article headed "Financial" claims attention, and is liable to produce a false impression upon the public mind in regard to the subject of finance, banking, currency and exchanges, the true financial condition of the United States, and the duty of citizens to the government during a time of war.

Its reprobation of the conduct of the government in the issue of legal tender notes as a circulating medium, after most of the banks of issue in the United States, both north and south had suspended specie payment in the redemption of their own notes, was not patriotic. Specie had nearly disappeared from circulation, etc. D.

Now why did gold disappear from circulation? Precicely because the country was being flooded with paper money which necessarily sent gold to a paper money premium, or in more correct language, tho paper currency had fallen to a serious discount. No greater fallacy can exist than that gold has risen in value owing to the flood of *greenbacks*, the reverse of this is the real fact. Gold has been lowered in value, owing to the issue of paper money beyond the wants of the community and consequently has flowed out of the United States, where it was comparitively cheap, into Europe, where it was comparitively dear. The precious metals are only after all commercial commodities and are regulated by the same laws that guide other articles of commerce, flow from cheap to dear markets, and not from dear to cheap ones. By the almost common consent of mankind the precious metals have been accepted, if not as standards, certainly as measures of value, they have been selected for this purpose owing to their scarcity and possessing valuable properties which peculiarly well adapt them for that purpose. When, therefore, paper is substituted for gold and is compulsorily made to perform the office of the latter, the precious metal must disappear. This is a law as potent and infallible as the movements of the universe, though many wiseacres and financial numskulls are apt to think differently.

On general principles, we are opposed to the United States being other than a sound Jacksonian hard money government. As patriots, we oppose the greenbacks because we believe their issue has more than any other thing tended to paralyze the Federal efforts. The issue of legal tenders has no doubt made Mr. Secretary Chase's seat more easy, and has facilitated the accumulation of fortunes by contractors, etc., at the expense of the poor soldier and every other member of the country engaged in an industrious and wealth developing occupations.

The following clippings from recent Eastern papers serve to show that the Frankenstein of paper money called into existence by Mr. Chase has already began to alarm him.

"This condition of money markets is attributed to a confident belief that whatever the fiscal policy determined upon at Washington, money matters would and must be kept easy and comfortable, so far as in the power of Government to keep them so, in order to facilitate negotiations. An opposite policy, occasioning commercial distress, besides embarrassing the financial operations of Mr. Chase, would increase the unpopularity of the war and of the Administration."

"Notwithstanding the prevailing impression that the Secretary of the Treasury would be compelled to continue the use of the Legal Tenders, and would certainly do so, at least to the extent already authorized, his hostility to those issues and his desire to adopt some plan by which the depreciation of the currency should be arrested, had been frequently avowed; and should he chance, by way of experiment, to throw a loan of any considerable amount upon the market, the effect upon public securities could be readily foreseen."

Again the conversion of Legal Tenders into "5-20s" show that money enough could have been raised had only the proper temptation been offered. Exception has been taken at our having used the term shinplaster when applied to national currency, we at once admit its impropriety, and take back the expression, at the same time hoping that the error will be excused, it having been applied in unthinking haste.

The latest telegrams state that the premium on gold was advancing, and doubtless will advance so long as additional greenbacks are issued, and will recede just in proportion as they are absorbed by conversion into 5-20s, a step somewhat similar to what ought to have been adopted in the first instance.

UNFERMENTED BREAD CO.—This establishment has lately added new machinery, being a duplicate set, which will enable them to guarantee a constant supply in future, which, before, they have been unable to do. They will commence at once the manufacture of *Graham Bread* by the same process, which will be an interesting item to the lovers of that favorite article. See advertisement.

OUR WOOL GROWERS will find who to call upon to dispose of their wool to the best advantage, by referring to our advertising columns, which embrace the cards of the most prominent wool and hide dealers in the city, and to whom we would refer our country friends.

MESSRS. MCDONALD & CO. have opened a new native wine depot 112 Leidsdorf street, and to which we shall take occasion to refer after a visit we expect to pay to the establishment in a few days.

Wool.

The latest advices from New York show that stocks were getting very low, with the probability that long before the present Spring clip of California wool can arrive there, the market will be wholly cleared. Consumers have been buying very liberally, at advanced prices. The stock of California is being very rapidly reduced, the sales since the steamer amounting to 330 bales, at prices ranging from 43c to 50c—the latter price for Washed and Pulled. A sale is reported at Boston of 100,000 lbs. California, at 52a55c, these prices, it must be understood, as valued in "greenbacks."

We regret to see that two of our daily papers have given circulation to a circular purporting to have been issued by Messrs. Smith & Lynch, calclated to do considerable injury to the credit of Messrs. McLennan & Grissar's grade marks. A simple explanation will put the matter in a proper light. Messrs. McL. & G. assort wools according to grade or staple, which has no reference to the condition of the wool as regards dirt, etc.; the latter of the same grade being always the most difficult to dispose of. Our advices from Liverpool state that dirty samples are unsaleable.

Our English advices, which date up to the latter part of February, state the market to be dull, but prices maintained, but accompanied with the information that a full amount of machinery was running. There can be no doubt full prices will be maintained. Not much wool has as yet appeared in San Francisco. What has, has been purchased wholly by the woollen mills, at good prices.

Hides, Tallow, etc.

The hide market is firmer both here and at New York.—In California, however, prices have not increased, although it is thought next month will see an advance.

Mr. Smith having dissolved partnership with Mr. Willoughby, the former has taken the sole management of the extensive curing establishment at the Potrero Nuevo. The past winter has been a more than usually favorable one for such operations.

Tallow is not so much in request; stocks accumulating. It would be difficult to realize 6 cents for a quantity. The price in Europe is also falling.

Parties interested in stock will do well to read an article in the present number on the disposition of fat on different varieties of the same species of stock. When the series is completed, as also one on hides, tallow, etc., the stock raiser will be enabled to make much practical use of the information.

Mining.

The temperature of the season has risen to its full altitude, accompanying which not less high and hot have been the aspirations of prospectors and millionaires in posse. No little amount of money is being put into mining matters, usually, however, with very little discretion—what capital is so invested is however insufficient to feed all the hungry speculating prospecters and brokers only, a miracle is being effected when the thousands were fed on five loaves and three small fishes. Hard work and much money will have to be expended before the thousands of expectants can have their desires at all gratified.

Squarza's Punch.—Recently being invited by a friend to make a call on and in future to patronize as far as our limited expenditure in this line admitted, the friend and companion of Garibaldi, we turned into Leidesdorff street in order to imbibe one or the other of these well known, and as we now know from experience, justly appreciated compounds. Our friend being an acquaintance of Squarza's, we were at once introduced to him, and entering into familiar conversation, we were at once strongly reminded of the very earnest way in which the late Professor Edward Forbs was at times apt to declaim against the pervading general ignorance amongst mankind that professional celebrities, scientific military or otherwise, were unfitted for ordinary occupations and amusements. Professor Forbes used often to remark that he could find persons amongst his scientific acquaintance whom he would challenge against all comers to pull an oar, throw a quoit, wrestle, run, leap, ride, use the rifle, sing a song, or make a TUMBLER OF PUNCH, against any other half dozen picked individuals selected from all other classes. So with Squarza, patriotism and punch making would appear to be inseparably connected, and we must say that after imbibing some of his fine rum punch we rather thought that the warmth of our feelings in favor of Italian independence possibly was as much increased by the pleasant excitement of his beverage as to the justice of the cause. We were afterward tempted to taste his Chocolate, Carraway, Anti-dyspepsia Nectar, and the Gods be praised, lastly above all others ANTI-DIVORCE punch. Thinking probable from the recent frequency of divorces in this city, and the facilities of obtaining them, that at some future day we might be called to appear in the 4th or 12th Court to answer charges there current, we deemed it cheaper to try the effects of a bottle than have to pay a long bill to Messrs. Snarl, Gripe & Vulpin. The effects of the remedy we will report at a future day.

EUREKA SOAP.—We would call the attention of our readers to this valuable article, for home use. To *wool* growers, especially, we think it will be found most essential in cleaning their wool for market; an all-important matter in the present condition of the price of wool.

DR. SMITH'S
Water Cure and Phrenological Institute,

620 Clay St., bet. Montgomery and Kearny.

This is the only Regular Hydropathic Establishment in San Francisco where all the appliances of Eastern and European Water Cures are used, and the mode of curing Diseases is conducted according to the THEORY and Practice of the Hygeio Therapeutic or Hydropathic College of New York. Here we are thoroughly prepared by all the various Water Appliances, Electricity, Motorpathy, Systematic Exercises, and a Nutritious and Wholesome Diet to treat and cure all Acute and Chronic Diseases to which men are subject—especially all Rheumatic, Billious, Dyspeptic, and Lung Diseases; together with all general or special weaknesses peculiar to males.

At our LADIES' HEALTH INSTITUTE, No. **10 Sutter Street,** we continue to give Baths and treat Ladies for all general Disease, whether Dyspeptic, Neuralgic, Billious, or Pulmonary. But the treatment of all Nervous Conditions and Weaknesses peculiar to Females, has for nearly Five Years, in California, been made the speciality of our Institution—and as our Establishment for the treatment of Gentlemen is now separate from the Ladies' Health Institute, we are better and more pleasantly prepared to treat Women than before. We are fully warranted in saying that in no class of diseases have we experienced more speedy and positive cures. We have seldom found it necessary for Ladies to remain longer than four or five weeks, to be permanently cured. Terms—From $15 to $25 per week.

BARLOW J. SMITH, M. D., Physician and Surgeon.

CHRISTY & WISE,

WOOL COMMISSION MERCHANTS

Are prepared to make Liberal Advances on Consignments of

WOOL, HIDES, and TALLOW

They will devote themselves, as usual, to the Interests of

WOOL GROWERS,

And solicit a continuance of their patronage. Sacks and Twine furnished when desired.

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607 Sansome St. San Francisco, Government House

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BUTTER, EGGS, CHEESE

HIDES, WOOL, TALLOW, ETC.

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Forwarding Agent,

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Particular attention paid to Consignments of Produce, Etc., and the Purchasing of Merchandise. Also, to the Sale of

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Attractive Stock!—Beautiful Styles!

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Tapestry Brussels, Imperial Three Ply,
Patent Tapestry, Superfine and Extra Fine Ingrains,
Oil Cloths, Window Shades, all prices.

Lace Curtains,

UPHOLSTERY TRIMMINGS GENERALLY.

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Northeast Corner of Sacramento and Montgomery Streets.

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PURE NATIVE WINES,
VERMONT CIDER,
NATIVE WHITE WINE,
RASPBERRY WINE,
BLACKBERRY WINE,
CHERRY RUM,
PURE NEW ENGLAND RUM,
BAY RUM,
TARBETT'S WORMWOOD BITTERS,
TARBETT'S CELEBRATED HORSE-RADISH BITTERS.

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No. 115 LEIDESDORFF STREET,

Between California and Sacramento, from the bottle upwards, to suit purchasers.

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AT THE SAN FRANCISCO BAY DISTRICT AGRICULTURAL FAIR, 1862.

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44 LEIDESDORFF STREET,

OPPOSITE WHAT CHEER HOUSE.

HIDES and WOOL.

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GROCER,

☞ FOR CASH ONLY! ☜

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Groceries, Provisions, Household Wares, Fine Brandies and Wines

Our Extensive Facilities for Purchasing, and Long Experience in Trade, enables us to supply our Patrons at the Lowest Possible Wholesale Prices. Persons residing out of Town are assured that our Goods are of the Very Best Quality, and Guaranteed to be as represented. We solicit ORDERS by Mail, from Families who are disposed to buy in quantities, assuring them that special attention will be given to them, and that an IMPORTANT PER CENTAGE will be saved over the customary manner of purchasing. From our Large Stock, Goods will be judiciously selected, carefully packed, and promptly dispatched to the Steamers and Vessels. No cost for Packing, and Free of Cartage.

BOWEN BROTHERS,
Corner Montgomery and California Streets.

WOOL!—WOOL!—WOOL!

— AND —

HIDES.

HIGHEST MARKET PRICE PAID FOR
WOOL AND HIDES!

Also, Advances made on Wool shipped to our friends in Boston. Consignments solicited, which will have our prompt attention.

C. L. TAYLOR & CO.,
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A. T. FARISH & CO.,

Wool and Hide Brokers,

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Our Business is to Sell on Commission, and not Buy.

R. FEUERSTEIN & CO.,

PURCHASERS OF

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BETWEEN CALIFORNIA AND SACRAMENTO STS
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Depot for the sale of his

NATIVE WINES AND BRANDIES,
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Corner of Pine and Montgomery Streets, ... SAN FRANCISCO.

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WOOL, HIDES,

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PACIFIC WINE DEPOT.

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RED AND WHITE TABLE WINES.
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GEN. SUTTER'S FAVORITE WINES. (From Hock Farm.)
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WOOLSEY'S, LUSK'S, LANSING'S, REED'S, AND BARSTOW'S RASPBERRY, BLACKBERRY AND RHUBARB WINES.

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PICKLES AND SALT IN EVERY VARIETY OF PACKAGE.

CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SAN FRANCISCO: MAY, 1863. NUMBER 5.

On Crossing the Alpaca, Vicuna, etc., and the Hybridization of Animals.

BY T. ROWLANDSON, F. G. S. L.

I FEEL tempted to make a few remarks on the above subject, partly with the object of assisting, as far as I individually can, the praiseworthy efforts of Commander Bissell in introducing, as far as practicable, the extensive rearing of the Alpaca and its congeners. I have ventured, also, to append some remarks on the subject of hybridization generally, which I hope will be acceptable. I have been induced to make the latter remarks by way of amende for the error committed by me, in a paper published in the March number of the WINE, WOOL AND STOCK JOURNAL, namely—that of representing, on the authority of Commander Bissell, that Mr. Ledger, Australia, had demonstrated the fact of the fecundization of the Merino by the Vicuna, in place, as it now appears I ought to have done, that the cross alluded to was that amongst the Peruvian races themselves; a point of no mean importance, as I shall shortly proceed to show. The experiment to cross these animals with the Merino, according to Commander Bissell's letter, is now under trial, and it was most probable that my error was caused in consequence of a conversation held on board the Cyane, with reference to the then contemplated attempt; of its success, I must admit that I am very doubtful. Since my visit to the imported animals, I have looked up all my manuscript memoranda relating to the subject, and commenced twenty-five years ago, as well as all printed matter contained in my library bearing on the question. Amongst the latter, I find the following in the Patent Office Reports:

"The Llama and Alpaca, as well as the Alpaca and Vicuna, can be induced to breed together, and of the former union there are frequent instances to be met with in Europe as well as in Peru. From this alliance a beautiful hybrid results, if possible, finer to the eye than either parent, and also more easily trained to work, but like the mule it does not procreate."

"From the sterility of the hybridous race it would follow that the Alpaca is a distinct variety of the Llama tribe, differing as much from its allied species as the horse does from the ass; and consequently, that the two domestic animals of the Peruvians were not brought to the present state by means of crossing (a postulate which I am not prepared wholly to admit). This intermixture is a modern expedient by the Spaniards. * * * * * *

"From the report of M. Bory de Saint Vincent, a distinguished naturalist, who accompanied the French army into Spain, under Marshal Soult, that he observed in the Zoological Garden of Don Francisco de Theran, at San Lucas de Barrameda, in Andalusia, three *alpa-vigonias* (the cross between the Vicuna and the Alpaca) the fleeces of which were much longer, and six times heavier than those of any other variety. The Spaniards were proud of this acquisition, thinking that they had thereby obtained a new race of wool-bearing animals, calculated to people their hills and repair the loss sustained through the decline in their Merino flock. By the experiment in crossing, however, they defeated the very object which they had in view, as the animals gradually died off without leaving any offspring, and in the

course of a few years, there was scarcely one individual to be found in the kingdom."

Perhaps the most important element connected with the successful acclimatization and hybridization of animals and plants also, will be found to consist in the scene of experiment, comprising as far as possible all the conditions of the original habitat of the species attempted to be introduced into any new locality. Should partial failures in the case of the Alpaca occur in California, it is quite probable that, if such occur, they may be traced to the too genial climate of those parts of the State where the attempt is first made, or the confinement of the animals to too restricted a space. It was the opinion of Mr. Aikin, the shepherd of the Marquis of Breadalbain, that less mortality would have occurred amongst the Alpacas introduced on the Breadalbain estate in Scotland, had they been less petted, and left more to their natural appetites and resources.

The experiments about to be made with the Alpacas as recently introduced into California, ought to be watched with great care, not only for the possible economic advantage which may be the result of success, but also as a matter of great scientific interest as calculated to throw additional light on a subject respecting which very little is known even by the most observant, and will, I believe, justify the following lengthened observations on the subject of animal hybrids, and will chiefly consist of extracts from Mr. Charles Darwin, than whom no one ever paid so much attention to this interesting subject. The first observation of that eminent naturalist to which I shall call attention is, that after the sexual connexion of animals not of an identical variety, but closely allied, "An embryo may be developed, and then perish at an early period. This latter alternative has not been sufficiently attended to; but I believe by observations communicated to me by Mr. Hewitt, who has had great experience in hybridizing gallinaceous birds, that the early death of the embryo is a very frequent cause of sterility in first crosses. I was first very unwilling to believe in this view, as hybrids when once born are generally healthy and long lived, as we see in the case of the common mule. Hybrids, however, are differently circumstanced before and after birth; when born and living in a country where their two parents can live, they are generally placed under suitable conditions of life. But a hybrid partakes of only half of the nature and constitution of its mother, and therefore before birth, as long as it is nourished within its mother's womb or within the egg or seed produced by the mother, it may be exposed to conditions in some degree unsuitable, and consequently be liable to perish at an early period; more especially as all young beings seem eminently sensitive to injurious or unnatural conditions of life." Irrespective of the broad, general difference of species between the sheep and the Llama tribes, there is one physiological fact which must, I think, forever militate against the successful crossing of these two animals, namely, of the period of gestation with the former being only about one half the time required by the latter, whilst however strongly opposed in opinion that the Llama and sheep can ever be successfully crossed, I am equally earnest in the belief that the Vicuna and Alpaca and Llama may be done so advantageously and in considerable variety with economic advantage. I shall have again to recur to the observations of the naturalist already alluded to, in illustration of this part of the subject, who observes:

"In regard to the sterility of hybrids, in which the sexual elements are imperfectly developed, the case is very different. I have more than once alluded to a large body of facts, which I have collected, showing that when animals and plants are removed from their natural conditions, they are extremely liable to have their reproductive systems seriously affected. This in fact is the great bar to the domestication of animals. Between the sterility thus superinduced and that of hybrids, there are many points of similarity. In both cases the sterility is independent of general health, and is often accompanied by excess of size or great luxuriance. In both cases the sterility occurs in various degrees; in both, the male element is the most liable to be affected; but sometimes the female more than the male. In both, the tendency goes to a certain extent with systematic affinity, for whole groups of animals and plants are rendered impotent by the same unnatural conditions; and whole groups of species tend to produce sterile hybrids. On the other hand, one species in a group will sometimes resist great changes in conditions with unimpaired fertility; and certain species in a group will produce unusually fertile hybrids. No one can tell, till he tries, whether any particular animal will breed under confinement, or any exotic plant seed freely under culture; nor can he tell, till he tries, whether any two species of a genus will produce more or less sterile hybrids. Lastly, when organic beings are placed during several generations under conditions not natural to them, they are extremely liable to vary, which is due, as I believe, to their reproductive systems having been specially affected, though in a lesser degree than when sterility ensues. So it is with hybrids, for hybrids in successive generations are eminently liable to vary, as every experimentalist has observed. Thus we see that when organic beings are placed under new and unnatural conditions, and when hy-

brids are produced by the unnatural crossing of two species, the reproductive system, independently of the general state of health, is affected by sterility in a very similar manner. In the one case, the conditions of life have been disturbed, though often in so slight a degree as to be inappreciable by us; in the other case, or that of hybrids, the external conditions have remained the same, but the organization has been disturbed by two different structures and constitutions having been blended into one. For it is scarcely possible that two organizations should be compounded into one, without some disturbance occurring in the development or periodical action or mental relation of the different parts and organs one to another, or to the conditions of life. When hybrids are able to breed *inter se*, they transmit to their offspring, from generation to generation, the same compounded organization, and hence we need not be surprised that their sterility, though in some degree variable, rarely diminishes.

"It must, however, be confessed that we cannot understand, excepting on vague hypothesis, several facts with respect to the sterility of hybrids, which occasionally and exceptionally resemble closely either parent. Nor do I pretend that the foregoing remarks go to the root of the matter; no explanation is offered why an organism, when placed under unnatural conditions, is rendered sterile. All that I have attempted to show, is that in two cases, some respects allied, sterility is the common result,—in the one case from the conditions of life having been disturbed, in the other case from the organization having been disturbed by two organizations having been compounded into one.

"It may seem fanciful, but I suspect that a similar parallelism extends to an allied, yet very different class of facts. It is an old and almost universal belief, founded, I think, on a considerable body of evidence, that slight changes in the conditions of life are beneficial to all living things. We see this acted on by farmers and gardeners in their frequent exchanges of seed, tubers, etc., from one soil or climate to another, and back again. * * Hence it seems that, on the one hand, slight changes in the conditions of life benefit all organic beings, and on the other hand, that slight crosses, that is, crosses between the males and females of the same species which have varied and become slightly different, give vigor and fertility to the offspring. But we have seen that greater changes, or changes of a particular nature, often render organic beings in some degree sterile; and that greater crosses, that is, crosses between males and females which have become widely or specifically different, produce hybrids which are generally sterile in some degree. * * Both series of facts seem to be connected together by some common but unknown bond, which is essentially related to the principle of life.

"In regard to animals, much fewer experiments have been carefully tried than with plants. Your systematic arrangements can be trusted, that is if the *genera* of animals are as distinct from each other as are the *genera* of plants, then we may infer that animals more widely separated in the scale of nature can be more easily crossed than in the case of plants; but the hybrids themselves are, I think, more sterile. I doubt whether any case of a perfectly fertile hybrid animal can be considered as thoroughly well authenticated. It should, however, be borne in mind that owing to few animals breeding freely under confinement, few experiments have been fairly tried; for instance the canary-bird has been crossed with nine other finches, but as not one of these nine species breeds freely in confinement, we have no right to expect that the first crosses between them and the canary, or that their hybrids should be perfectly fertile. Again with respect to the fertility in successive generations of the more fertile hybrid animals, I hardly know an instance in which two families of the same hybrid have been raised at the same time from different parents, so as to avoid the ill effects of close interbreeding. On the contrary, brothers and sisters have usually been crossed in each successive generation, in opposition to the constantly repeated admonition of every breeder. And in this case it is not at all surprising that the inherent sterility in the hybrids should have gone on increasing. If we were to act thus, and pair brothers and sisters in the case of any pure animal, which from any cause had the least tendency to sterility, the breed would assuredly be lost in a few generations.

"Although I do not know of any thoroughly well authenticated cases of perfectly fertile hybrid animals, I have some reason to believe that the hybrids from Cervulus vagenalis and Ruvisii, and from Phaseanus colchicus with P. terguatus and with P. virsicolor are perfectly fertile. There is no doubt that these three pheasants, namely, the courmon, the true ring-necked, and the Japan, intercross, and are becoming blended together in the woods of several parts of England. The hybrids from the Corunna and Chinese geese (A. cygruides), species which are so different that they are generally ranked in distinct genera, have often bred in this country with either pure parent, and in one single instance they have bred *inter se*. This was effected by Mr. Eyton, who raised two hybrids from the same parents but from different hatches; and from these two birds he raised no less than eight hybrids (grandchildren of the pure geese) from one nest. In India, however, these cross-bred geese must be far more fertile; for I am assured by two eminently capable judges, namely, Mr. Blyth and Captain Hutton, that whole flocks of these crossed geese are kept in various parts of the country, and as they are kept for profit, where neither pure parent-species exists, they must certainly be highly fertile."

The last named fact is one familiar in California, a large number of the geese brought to the San Francisco market being hybrids of the character just alluded to, which hybrids are well known to reproduce themselves, though it must be admitted that a larger portion of their eggs are infertile than is the case

when the sexual connexion has only been between members of one variety. I am not able to place my hand at the present moment on my authority, but I remember reading an instance that appeared to me well authenticated, that a mule in the United States twice produced a foal. If this is correct, as I believe it is, it will require no great stretch of the imagination to believe that in the wild state in their original habitat, living offspring may occasionally have been the result of the intercourse between the two varieties of the species.

Bearing all the preceding facts in view, I do not conceive that there will be any great difficulty in successfully crossing the Alpaca with the Vicuna, etc., and further, the great affinity of these varieties makes it probable that under favorable circumstances such crosses or hybrids will prove fertile *inter se*,—there are, however, many circumstances which may retard or prevent such a consummation. In the first place, neither the climate of Australia, Andalusia, or California is of the exact character best suited to experiment, at all events in the lower valleys. The upper and colder ones would more resemble the natural habitat of those animals, moreover in the case of California and Europe has to be added the complete reversal of the seasons, a matter which will most probably be found to exercise considerable influence, for, although the experiments made in England have demonstrated fully that the Alpaca with the Alpaca readily reproduce their kind, the reversion of the seasons may be found the impediment to the successful production of hybrids. It is very desirable that correct information should be obtained whether the female seeks its mate at varied and all, or only at special seasons. These hints are thrown out in order to facilitate as much as possible the successful and extended introduction of these interesting animals.

How to Encourage California Wool Growing.—The best way of encouraging that important section of our domestic industry is to purchase as much as possible those goods made at home and composed of materials consisting of native growth. We were much struck in being shown over the stock of Messrs. Lazard Bros., the agents of the Mission Woolen Mills, to discern how great a variety of goods of daily and great consumption can be manufactured at that establishment. Blankets of every description, flannels, ordinary cloths, etc., are now being turned out in large quantities daily, and as they can be afforded at prices as low or lower than imported articles, it is to the interest as well as the duty of heads of families to give a preference to the products of our domestic looms and spindles.

FINE WOOL.

[continued.]

The stables for sheep, with few exceptions, are very spacious and well suited for the object. All the necessary implements and utensils are provided. Order and cleanliness exist everywhere. Fodder is plenty and stored with care. Upon the lofts there is great order as to the way, how and when the different kinds of fodder are to be given, and properly measured out. The shepherds, although not yet arrived to that degree of perfection which they should possess, are better than any in Europe.

Great attention is here paid to the sheep during the period of coupling. It takes place in January, and summer lambs are most advantageous. The superior qualities of the Silesian wool which is so much praised by the purchasers, are to be ascribed to the change of having the lambs in summer instead of winter. The choice of rams is made with all the acquired experience of the intelligent wool grower himself; and if he thinks himself wanting in necessary knowledge, he employs others who have the best reputation and make it a regular business. In all the stables the temperature is regulated by means of thermometers; because the Silesian wool grower knows, that a regulated temperature aids in the perfect developement of the wool hair. The flocks are yearly thoroughly examined, and those assorted into a class or classes which have the least inheritable faults.

The flocks are either under the immediate superintendency of the proprietors themselves or of directors, who are educated agriculturists, and who have acquired a fondness for this branch, zealous to make such improvements as will bring the flock to perfection. Most of them, besides the knowledge of feeding and of the general treatment of merinos, have a thorough knowledge of wool, which can only be gained by long practice and by comparison of the best kinds.

The sheep-master (*schafmeister*) has the management of a certain number of flocks, and under him stands the shepherd, who executes the orders of this employer; and on him depends everything in regard to the careful treatment in feeding; keeping them in suitable grounds during rainy weather, watching them carefully in respect to health; in short upon him rests the principal success of the flocks. Such sheep-masters are exceedingly rare; and the wool growers of Poland, Russia and Hungary, offer high salaries to induce the Silesian sheep-masters to take charge of their flocks.

Much depends, also upon the shepherds; they are exclusively brought up for that business, and their whole life time is devoted to it. They are familiar with the nature of every sheep in their flocks; and when one goes the least lame, or forsakes its food, it is caught and examined and treated accordingly. They have sufficient knowledge of the mode of using their pasture lands; they use them in succession, so that the sheep have always a fresh supply of food, and sufficient time is thus given for the grass to

grow undisturbed; even the stubble pasture is used symetrically.

The written order for the mode of feeeding—"how much, what kind, when it must be given," etc., is nailed up in the stables, and the shepherd pays strict attention to it. The quantity of fodder is exactly estimated, and the amount required for the winter season calculated, and an additional supply set aside in case of a late season, and for rainy and cold days. The lambs are numbered by the marks in the ears, or by number fastened around their necks. The pedigrees are regularly kept up, so that the relationship of every animal can be given with great accuracy.

Breeding fine merinos is not a kind of hobby among the Silesian farmers, which swallows up all the profits of the estate. No! it is made a profitable branch of the farm husbandry, which pays a good price for the fodder, litter, and labor bestowed upon it, in return for which the farm allows to the sheep account a fair price for the manure. The rotations are not exclusively for raising fodder crops, but produce a great quantity of commercial plants, as for instance rape seed, which was formerly not planted at all in Silesia, but which now amounts to several hundred thousand Prussian sheffels per year; and besides great quantities of grain are produced to supply the growing population with breadstuffs.

The number of sheep upon a given number of acres of land is on an average, five sheep for four acres of plow land (the Germans call land which is used for raising crops, plow land, in distinction from meadow or pasture land.) This, however, depends on the quality of land suitable for fodder crops and pastures, the number of acres of meadows, and the quality, and especially on the intelligence of the superintendent. Sometimes they keep more sheep, but never less than three or four acres. At the time wool brought such high prices, some of the estates kept only a few head of cattle; but since the prices of wool have diminished, sheep breeding has not been considered nearly so profitable, and partly from the fact that they have ascertained by experience a great number of sheep operates injuriously upon the other branches of the farm, they have increased their stocks of cattle again. But notwithstanding this diminished revenue through the decrease of the price of wool, it is looked upon as the most important and profitable branch of farm husbandry, consequently the proper degree of attention and care is paid to it.

In Silesia the estates are not very extensive; the right of pasturing the sheep upon the property of the peasants has been abolished; the commons have been divided among the different farmers, and every estate holder has to depend upon his own extent of property for the supply of pasture; extensive districts of pasture land, as in Russia or Hungary, have been unknown to the Silesians for many years back.

Breslau has every year two wool markets, one in the spring, the other in the autumn; at the spring market the quantity of wool amounts to about 60,000 cwt., at a value of four million of thalers, (or nearly $3,000,000 of the United States,) in the autumn it scarcely reaches to 8,000 cwt.

Great improvements have likewise been made in washing the wool, also in shearing and packing.

Shearing is generally done by women who obtain usually at one and one-sixth cents per head and for a ram two and one-third cents. Some of them shear thirty to thirty-six per day; but with all the experience these women have, they do not shear well, cut steps, as they are called, and very often wound the sheep.

The wool was formerly packed in long round bags, but now it is packed in square "kollies," as they are called, which are perfect cubes or oblong, and flat like a mattrass. January is the time when the purchase of rams and ewes to breed from, are made, and every one tries to obtain the best. This raises the price of sheep of the most celebrated establishments to an incredible hight.

Notes on Wine Making.

The first requisite to make good wine seems to be a peculiar quality in the soil in which the fruit is grown, more than in the species of vine itself. Every treatment, after the vintage, is secondary to this. The quality in the soil which operates upon the plant, so genial in some spots, yet scanty and confined in limit, is in its precise nature unknown. The general character of the soils friendly to the vine is already familiar to the reader; but the nature of the influence possessed by one small spot in the vineyard over another, as exhibited in the productions of several choice varieties of the vine, will, perhaps, forever baffle the keenest spirit of inquiry.

The second requisite to good wine is the species of plant, aided by a judicious mode of training and cultivation. On the whole it appears that to refrain from attending to the soil at all, is better than to overwork it. Three-fourths of all vines are grown on hills, and wines of the first character are made from those that flourish among stones and pieces of rock, with little attention, more than occasionally raking the ground between them, where it is possible to do so. Hermitage was first grown among granite rocks and stones, broken smaller by art, and little or no dressing was used; on the other hand, no wine of tolerable quality is grown on rich highly-dressed land; this may be taken as of equal truth in the north and south. It is remarkable, also, that the quantity of must, afforded in different situations in all respects similar, differs much; and that, on approaching the south, the quantity rather diminishes, as if with the increase of the saccharine principle of the grape. Thus, as before seen, in the department of the Meurthe, in France, the quantity of wine per hectare is never under 50·64½ hectolitres. Examples of two hundred are on record: an incredible quantity. Reckoning the hectare at two acres and a half, and the hectolitre at twenty-six gallons, this amounts to upwards of twenty-two hundred gallons for the English acre. On the other hand, the produce in the

Cote d'Or only averages 22·81 each hectare, and only ten or twelve for the richer wines, while the poor wines of the Seine and Oise yield 52·13⅝. The species of plant which is a favorite in one district is discarded in another. In making the drier wines, the species seem more regulated by caprice than judgment; while, for the luscious, the rich grapes of the East are cultivated in preference, from their abounding so much in sugar.

The fermentation is carried on in troughs, vats, or casks, in all countries, covered or open, or in France with the apparatus of Gervais, to which allusion has already been made. This last mode is recommended because the inventor supposes it retains the strength and aroma of the wine; but a far better method is adopted in *tonneaux a portes.* It is argued by some that the process should be as quick as possible, and by others that it should be slow, each pursuing his own method. Effervescing wines in Champagne are casked soon after the fermentation commences. The must is not allowed to free itself of the carbonic acid gas, nor to remain in the vat but a few hours, nor is it racked until the Christmas after the vintage. In the Ardeche, on the contrary, the wine of Argentière, designed to effervesce, remains in the vat twenty-four hours, the must is racked into large bottles, and decanted every two days, until there is no appearance of fermentation, and then bottled, corked, and sealed. The effervescing wine of Arbois, once so celebrated, is made by suffering the must to remain from twenty-four to forty-eight hours in the vat, until a crust of the lees is formed as thick as possible before the fermentation begins. The moment gas bubbles ascend it is racked, left until a second crust is formed, racked again, and the double operation repeated until the must is limpid. It is then casked, and, until the fermentation is complete, kept full. When the fermentation ceases, the cask is bunged. It is several times racked, and once fined before the following month, when it is bottled. Here are three modes in one country of making *mousseux* wine. Nor can the best wine of the three settle the question which mode is preferable, as the growth may cause the difference in the goodness of the product. Other modes might be cited, but the preceding will exhibit to the reader, in a clear point of view, the variety of treatment to which wines are subjected, and he will find others himself, if he wishes to follow the comparison further.

Neither with red wines is there any uniform treatment. The fine Burgundies of France are managed in the simplest manner, while great labor is bestowed upon wine of very inferior character. Some wines are left but a few hours in the vat, as in the Cote d'Or; others remain, as in the Lyonnais, six or eight days or more, and at Narbonne even seventy. Nor does any difference of product prove the discrepancy between one mode of treatment and another, where the wines are good. This being the case with every class, it may reasonably be inferred, that much less of the peculiar excellency of wine attaches to its treatment after it enters the vat than is generally imagined. When the must has been judiciously placed in a state ready for fermentation, after due care had been exercised, simplicity is all which remains to be done, and very frequently the opposite methods adopted from caprice or custom, to make it ready for the market are often injurious, tend to substantiate this opinion, not to excluding improvement in numerous existing cases of management.—*Redding.*

[Editorial Correspondence.]

A Trip to Sonoma Valley.

Desiring a brief respite from the confinements of city and office life, and a change from brick walls to green fields and fresh air, we took it into our head one fine morning to jump on board the steamer "Princess," for a few days sojourn among the gardens and vineyards of "Sonoma," in accordance with some invitations of long standing.

The "Princess" has lately been refitted throughout, machinery and all, and is now owned by a company or association of gentlemen under the name of the "Sonoma Steam Navigation Company;" commanded by the pioneer, Captain Flynn, well known to the traveling community in past years. The purser, Mr. Bosqui, and other officers of the boat, each being interested in the company, it is their object to see that proper attention is paid to all travelers, it being the intention to make this the most convenient, comfortable, and accessible route to Sonoma, Santa Rosa, Napa, and the Sulpher Springs.

The trip to Sonoma occupies only about three hours, and is a delightful one indeed, in fine weather. The steamer lands her passengers at the new Embarcadero, on Sonoma Creek, where stages are in readiness, on the arrival of the boat, to convey them to Sonoma, or Santa Rosa. The road leads across the prairie land, covered on all sides with the most beautiful wild flowers, filling the air with fragrance,—then into a fine graveled road, passing beautiful ranches, vineyards, and gardens, all in a high state of cultivation, fine modern residences, and orchards filled with fruit trees all in bloom, then merging into the main road, and after a pleasant ride of five miles, reach the plaza, surrounded by the old adobe buildings, and in a few moments, drive up to the "Union Hotel," where for the present, our journey ends.

A full description of all the vineyards and gardens visited would be impossible at this time, for want of space, which will oblige us to condense somewhat, in order to make some mention of each. The vineyards of Sonoma are among the prominent objects of interest to all visiting the valley, and embraces a large portion of it and the hillsides from Sonoma Creek northward towards Santa Rosa. One can, from the hills, take in a view of and observe the shape of the valley, spreading out to the bay, dotted here and there with almost a continued series of vineyards, of all sizes and shapes, and in the most flourishing condition.

Col. Haraszthy is noted among the earliest in the business of grape growing and wine making in this valley. In the absence of the Colonel (who was in San Francisco) we were most kindly received and waited upon by his son, Mr. Apard Haraszthy, who has charge of the cellars and wine making, being thoroughly versed in the business, from a three years'

residence in Europe among the most noted and celebrated manufacturers.

The cellar, or "Press House," is a large two story building, 54 by 64 feet, built of stone taken from the hill at the foot of which it is located. It is a most substantial structure. The upper floor is reached by a road running along the side of the hill. On this floor the grapes are crushed and pressed, and the champagne is made. On the right is the crusher, which is worked by steam power, and with five men will easily crush 50,000 pounds of grapes in a day. The process is as follows: The grapes are weighed at the door, then thrown on a table from which the feeder sweeps them off between the two rollers, from which they fall when crushed, into tubs which are carried away fast as filled, by two men, and emptied into the immense fermenting vats by means of a trap door directly over the opening. The vats, which are situated on the lower floor, have a top and false bottom 18 inches below. They are eleven in number, each holding 4,000 gallons, and built of redwood. On the other side of the floor we noticed the large Wine Press, a square, compact, and finely finished piece of work as can be found in any country. The base of the body of the press is but 11 feet by 10, and the beams and wood in it comprise 3,000 *feet of lumber*. The pressure is from below; the screw being stationary in the middle of the press, has a nut that is turned around it, to which are attached two eleven foot levers. The screw is *four* inches in diameter, and was made at Donahue's Foundry, in San Francisco. The press when full holds 60 cubic feet, and the pressure on the bottom is equal to 200,000 *pounds*. So compact are the *pummies*, I am told, that after this enormous pressure upon them, they resemble a perfect *block of black wood*, from which not even a drop of juice can be extracted. It is the intention, the coming season, to replace the levers by cog-wheels and steam power.

In the back part of the building is a complete set of machinery for the manufacture of champagne, consisting of eight pieces, among which those for corking, were the "cork mollifier," wire worker—for putting wire on—cork stringer, wire twister, etc. We tasted the champagne from the rack, which was of an excellent quality, and very adroitly opened by Mr. H. in order to let the sediment escape, which in itself is quite an art. They will make some 5,000 bottles of "*Sparkling Buena Vista Champagne.*"

Descending to the ground floor, communicating with which is a small stairway on the inside of the building, as well as the inclined road outside, we entered the lower story through a large double door, 10 feet wide and 10 feet in hight, and first observed the large vats, or tanks, previously spoken of. Owing to the large quantity of wine made of the last vintage, and the want of cellar room, there were four of the vats filled with wine, which was being drawn off, as the wine is being shipped to the Bay. Near by were six large casks, holding 500 gallons each, built of redwood also, for cellar use, but not for exportation. There are three tunnels running into the hill through the solid rock. Lighting our candles, we entered the main cellar, which is dug out of the bed rock; it is 70 feet long and 8 feet high, and 13 feet wide: it was originally 40 feet longer, but in boring the workmen struck a spring, and were forced to wall it up. In this cellar were the specimens of old wines and brandies. The White Wine of 1857 was a splendid wine, somewhat resembling a three year old Chablis Wine—they will soon have this bottled. White Wine of 1860 had a fine bouquet, and considered the best in the cellars—the flavor had a great resemblance to Rhenish Wine.

Some California brandy five years old was worthy of notice—having an excellent Cognac odor and a beautiful bouquet like a basket of fruit. The sample we took away fully preserved its *reputation* on later trials (as long as it lasted).

On the left of this tunnel is another cellar 25 feet wide and 35 feet long, which is used to stow away bottled wine. On the right is another called the new tunnel, 150 feet long, 15 feet wide and 8 feet high, in which were 100 full pipes of wine of the last vintage.

We tasted White and Red Wines of 1862—the White possessing a trifle Sautern bouquet—also some California brandies. Other samples of White and Red Wines of 1862, which require only age to give them the proper degree of perfection.

The last cellar or tunnel is a model, owing to its temperature and dryness over head and under feet. The floor was dry and hard, while the temperature, I am told, is constantly between 56½ and 58½ Fahrenheit at all seasons of the year: such a temperature, and so constant, is the real making of the wine.

Of last vintage there was made 32,000 gallons of Red and White Wine, first quality, and about 12,000 gallons second quality. There was also 1,000 gallons brandy distilled.

The distillery is a frame building, containing the steam engine, as all the brandy is *distilled by steam*, which can be regulated with perfect ease, whereas fire cannot be so exactly regulated as to keep a constant temperature. The spirit of wine begins to flow from the spout in four minutes from the time the steam was turned on the wine. The still is a stout oak cask holding 200 gallons, and seems to work admirably.

It is the intention the coming summer to construct another building for press house, etc., 100 feet long and somewhat wider than the present one; also another cellar or tunnel which will be 1,000 feet long, 15 feet wide, and 12 feet high, which will be made to contain 1,000 gallon casks, one hundred in number. These will be constructed of *redwood*, and furnished with *doors*. As the coming vintage of 1863 is expected to yield at least 100,000 gallons of wine, all the space will be required, and as soon as the cellars are completed they will be measured by *miles* instead of *feet*, as at present. Most of the wine is now being shipped to San Francisco, to make room for the next vintage, and the cellars presented much activity.

A heavy rain coming on prevented a walk through the vineyards and gardens, much to our disappointment, and I must defer mention of them, except in brief, until another visit at a later season of the year. As I learn from Mr. Haraszthy, the present vineyard contains 420 acres, of which 200 acres are planted to foreign vines, and the balance to the Mission Grape. There are 20,000 vines of the latter from six to *thirty years old*. The number of foreign species that are growing amount to 492 varieties. This collection is considered the largest in any vineyard known. The number planted is 680 vines to the acre. The vineyards are planted on the hill sides, which is thought to be the best location

for the vine for making wine, and will in time produce the best table wines, equal to any procured in Europe. The soils are of every kind, quality and color, but invariably showing their volcanic origin.

There are sixteen mineral springs on the place, all possessing medicinal qualities—magnesia, sulphur, etc., and the hill sides to the valley are more or less impregnated with those minerals.

"LACHRYMA MONTIS,"

The home of Gen. Vallejo, is in the town proper, about half a mile from the hotel. The vineyards contain about 40,000 vines, of which 30,000 are Mission grapes, from three to thirty years old, and 10,000 foreign vines from one to five years old. The garden and vineyard are under the charge of Pietro Jiovanari, and reflect much credit for their general fine appearance.

An avenue 600 yards in length approaches the mansion from the main road, lined on each side with rows of ash, cottonwood, willow, and fig trees. The land has been reclaimed, and on the avenue alone 10,000 loads of gravel were used, making a hard and splendid road. The garden surrounding the house is full of the most beautiful trees and shrubs, native and tropical—orange, fig, pomegranate, and the olive trees, with their beautiful foliage. There was a row of orange trees, in full fruit, and of monstrous size. One tree I noticed six years old, had over 50 oranges, the largest I have ever seen in this country, and many have been plucked from the tree. The house is built in modern style, with every convenience and comfort that luxury could desire. The bathing house, pantry, kitchen, dining room, storehouse, etc., are separate from the main building. The stable and carriage house are built of stone, and are substantial and spacious. A summer house and library is built on the sloping hill near the house, which is a favorite retreat, and rrom which a fine view of the valley can be had. While just at the base, and between the hill and house is a beautiful lake, fed by springs from the hills, in the center of which is a miniature island. On the margin of the lake are ducks and geese with fowls of different varieties, also a small boat for the convenience of those who may wish to enjoy a pleasant sail. From the lake the water is conveyed by means of pipes to all parts of the house, garden and orchard. Here, under the shelter of the sloping hill, carpeted with fragrant flowers, with the groves of orange and olive trees, and a garden full of exotic flowers, perfumed like gales from Araby, is everything that could make the heart satisfied and content, such is the home of Gen. Vallejo and his agreeable and hospitable family. The cellars in which the wines are stored are in a large adobe building in the plaza. Gen. Vallejo being absent from the city, we were waited upon by his son, Uladislua E. Vallejo and Dr. Victor Faure, who have charge of the cellars. The White Wine of 1862 was being changed off into barrels, which prevented a proper analysis—but it bore a fair comparison to any we have tasted.

We were shown White Wine made from 23 varieties of foreign white grapes — a delicious strong wine, also a a White Wine of 1862, made from 23 varieties of foreign red grapes—good flavor and bouquet,—also some Red Wine made from the same varieties of grapes, show a good body and excellent flavor—will improve much by age.

Catawba Wine 1861—fine bouquet, and of a marked character.

We tasted also a Red Wine made from a single variety of foreign grapes (the Chagres Hensley), a dry wine, and seemed nearer to the French Wine than any other variety—resembling a good Muscatel Wine. This variety is not so pleasant to the taste, but will make an excellent wine by age. It has the advantage of bearing heavy crops.

We tasted some other varieties of similar quality of wine from foreign grapes. They were made as samples, mostly to test which is the best, and to try the quality of the grape, for the purpose of ascertaining the best varieties for this country. The Dr. thinks a mixture of California and foreign grapes makes the best wine for market—but if only in small quantity the foreign grape will make the best quality. Many of the varieties of foreign grapes will make a good wine alone, but at present if employed alone is too expensive for market.

Some Pear Brandy was excellent, and shows what can be done by experiments.

There are four cellars in all. The casks are laid on wooden beams supported by brick pillars, 18 inches to 2 feet high.

The crop of wine made last season was from 10,000 to 12,000 gallons of wine, besides some 7,000 gallons made for other parties.

J. M. Maxwell has a fine ranch of 100 acres on Sonoma creek, about one mile from town. His vineyard contains 20,000 vines, 5,000 Mission grapes, and balance foreign vines, among which are some of the White Risling Grape, from which the German Hock is made. The soil is a red gravelly loam. We tasted some Red Wine of last year's vintage, which possessed a heavier body than the usual red wines, and which will make an excellent claret.

The bottom land near the creek is very fertile, produces good crops, yielding three and a half tons of hay to the acre. Here was a two acre field of Alfalfa, the most prolific I have met with in the country, being two feet high, and is estimated to yield two and a half tons to the acre. Every portion of the farm is conducted in a careful and scientific manner. In the stock department Mr. Maxwell is paying considerable attention, having some fine breed mares in foal to "David Hill" and "Bay State Champion." I noticed also in the meadow several handsome colts sired by "Champion," "David Hill," and "Black Warrior." He intends breeding none but the best stock. The stables and barn were worth especial notice, from the general neatness and convenience in every department—stalls for stock, harness room, carriage house, hay lofts, grain cutting room, etc., every portion admirably arranged, and devoted to some purpose, without any waste of room, and neat as a pin.

The homestead is of modern style, and comfortable as could be desired—the garden in front of the house neatly laid out, with beds of flowers and choice flowering shrubs near by a beautiful circular lawn of Alfalfa in bloom, the whole sufficiently shaded from the sun by the towering limbs of a noble oak in the center, and affording to the eye a most picturesque appearance.

Adjoining Mr. Maxwell is the Clayton farm, lately purchased by Wm. Hayes, Esq., of San Francisco. The vineyard near the house contains 5,000 vines, one third of which are

foreign varieties. This vineyard was quite a model for neatness, and shows fully the careful attention paid to it. The place is being rapidly improved by additions to the house and other buildings. The grounds are laid out in front of the house with various kinds of choice flowers, roses and shrubbery, embracing the Mountain Cedar, the beautiful Cœnothus, Manzanita, etc. In the bottom land near the creek is a fine orchard of five acres or more, full of fruit trees, which promises a good harvest, while all the other improvements going on betray a careful attention to the wants of the farm, in keeping with the taste of its owner, and promises to become one of the finest places in the valley.

But little attention is paid in this section to the culture of tobacco. The only party engaged in this branch, to any extent, is Mr. O. W. Craig, who has a ranch in the western portion of the valley, some three miles from town, across the creek, to which place we were driven by the kindness of Mr. Maxwell, behind a pair of fast bays. He has 300 acres of the best land in this valley, devoted to vineyard, tobacco culture, and pasturage for stock. He has planted this season 50 acres to tobacco—principally Conn. seed leaf and Virginia. The plants look very promising. He raised last season from six acres, three tons of tobacco, which he cured successfully. Mr. Craig intends manufacturing the present year's crop into cigars and chewing tobacco, having a building erected on the place for the purpose. Of this department we shall take occasion to speak at another time.

The vineyard contains 22,000 vines—12,000 Mission, and 10,000 foreign varieties three years old, including the famous "Johannisburg grape," and the "Black Burgundy." We tasted some White and Red Wine of 1862, made by Mr. Craig, which was equal to any we have tasted in the valley of the same age. The White was of a superior quality, good body, and delicious aroma. The Red possessed a fine flavor and body, resembling much a Catalonian wine. The peculiar flavor and pure quality of these wines shows that this portion of the valley can produce as good, if not better wines than the hill sides. The soil is a red loam, especially suited to the culture of the vine, with the advantage of the warm sun, whose rays lay directly on this portion, while others are sheltered. Another portion of the vineyard is near the foot hills, around which we drove after dinner; this has equally good advantages as to location, etc. The soil is excellent, being a gravelly loam, and the vineyard, like others, requires no irrigation. The method used here to carry off the water from the hills is by under, or blind draining. These vines are of the Mission variety, four years old. Mr. Craig expects to realize from this vineyard four thousand gallons of wine the coming season.

Mr. Craig is also paying some attention to the breeding of fine horses, and other stock. We noticed in the pasture some brood mares in foal to "Bucephalus" and "Billy Cheatem," and a number of fine colts sired by "Bucephalus" also "Starr King," a two year old colt by "Billy Cheatem," *sixteen hands* high, showing signs of *still rising in the world.* Also a Durham Bull, "Brigham Young," six years old, bred by Jerome Davis—good stock to breed from. In the yard was "Fanny Fern," a three year old filly by "Billy Cheatem," the pet of the family, and a fine animal. We cannot go into detail at this time, for want of room, but feel satisfied that the location of this ranch is in every respect admirably adapted for the culture of the vine and tobacco, and expect to hear the most favorable accounts in the future, from the results of Mr. Craig, in these departments.

The vineyard of S. W. Shaw contains 7,300 foreign vines, comprising 23 varieties, four years old, and considered on all sides to be the best vineyard of its size in the county or State, and the only one devoted exclusively to foreign grapes. Among the table grapes are the Muscat, of Alexandria, Black Hamburgh, Chasselas, Fontainbleau, Red Chasselas, Black Spanish, Black Ouillard, Cannonhall Muscat, Verdhallo, etc. Among the Wine Grapes are Grey Dischia, Black St. Peters, Barbaroux, Black Zinfindel, Ciotat, Large Rose of Peru, Queen Victoria, Verjus Burbelais, White Muscatelle, Black Malvoisey, etc. The vineyard runs down to the creek, near which it is proposed to build the future mansion, graperies, wine cellar, etc. The creek is bordered by some noble specimens of oak, ash, and maple, which will form a pleasant ornament to the grounds, which are already laid out perspectively by Mr. Shaw, and will when finished become a beautiful home. Mr. Shaw is our well known artist formerly of San Francisco, whose pictures have graced so many of our exhibitions, and still do our private homes; but having a taste for country life, has seen fit, and wisely too, to renounce the brush and canvas, and use his fine taste on nature's surface, and the adornment of a country home.

In the foot hills, just facing the town or main road, are a number of fine vineyards, owned by Major Snyder, General Williams, Messrs. Dressel, Lutgens, and others. Some of the parties were not at home to afford us information, so we shall defer mention till a later time.

We had a pleasant call at Mr. Lutgens' place, which is situated in the foot hills, and overlooking the valley. This is one of four sections, of 110 acres each; the vineyard contains 28 acres, comprising 17,000 Mission, and 3,000 foreign vines, in bearing condition, five years old. He made last year 1,500 gallons White, and 400 gallons Red Wine, which is of excellent quality for its age; he will make the entire product of the vineyard into wine this season. The soil is a gravelly loam, and ranges about the same as previously spoken of, with mineral and volcanic properties.

The house is built in modern style and adorned with elegance and comfort. The place is tastefully laid out, around which is a garden of the most beautiful flowers, rich even to profusion. Situated on an eminence, the view from this point is beautiful and enticing. The sloping hills, from base to summit, are already clothed in their rich robes of green, and gorgeous wild flowers; the broad, rich valley before us dotted here and there with farms and mansions, each vieing with the the other in points of architecture, according to the taste and means of the owners; the vineyards on all sides just bursting with leaf, which in a few months will be yielding their rich and luscious fruits; and the orchards full of blossom and fragrance; the rich grass in the pastures, which has already reached a luxuriant growth of green, being more brilliant than at any season of the year. The creek winding its way through the green valley, its banks sheltered by groves of sycamore, ash, willow, and native oaks, whose stalwart limbs seem almost like guardians of old, with the green moss and misletoe hanging from their branches; the lowlands adjoining, rich under their loads of vegetation; while spread out in the distance and surrounding the valley, almost, are the range of hills or mountains, over which creep the morning and evening mist, giving to the whole landscape a charming and romantic appearance, making one sigh, indeed, for a home in the country, away from the dull confinement of city life.

[To be continued next number.]

CALIFORNIA
Wine, Wool, and Stock Journal.

"Festina Lente,"---Hasten Slowly.

SAN FRANCISCO, MAY, 1863.

NOTICE.—We send copies of this number to such parties as we think are interested in the subjects to which this Journal is devoted, in the hope that after its perusal they will favor us with their subscriptions. Those not feeling that the paper is worth the small sum asked for it, after perusal, are requested to return the same to the publisher.

DAIRY MATTERS.

As a duty to our numerous and rapidly increasing subscribers who are interested in dairy stock, we commence under the above caption, a paper which will be continued in every future number, until the subject has been gone through. Like all other matters, change of position, climate and its accompaniments, pasturage, etc., necessitate an alteration in management, and it would perhaps be impossible to obtain an exact example what it would be entirely safe to follow, from the experience of even those places where the conduct is the most complete throughout the world. We purpose in our subsequent description and suggestions, to give an account of the dairy management of Holstien, as an example for excellence that is unsurpassed, accompanied by special remarks when we have occasion to believe that the example quoted would probably be not quite appropriate for this State, and what alteration we would suggest as a better substitute. The examples which will be given are upon a large scale, but the general principles are equally applicable to those of more reduced establishments.

HOLSTEIN DAIRY MANAGEMENT.—The pride and boast of the Holsteiner is his dairy, and as his country makes the largest amount of the finest butter produced in the world, an account of the peculiarities of his management will prove both interesting and useful, not only generally, but particularly to California, whose summers in temperature do not much differ from those of Holstein, especially along the coast range.

Holstein management may be divided into four heads, viz.: The buildings and utensils; the time of milking and the number of hands employed; the management of the milk; and the mode of working, salting, and packing the butter; the last being a point, which we must confess the bulk of our dairy people are very deficient, otherwise we should not be importing as we did last year 7,000,000 lbs. from the Eastern States, at a cost which may be rightly estimated at $1,500,000, but which would have yielded, had the same been made here, a money return to our domestic farmers, owing to the difference between the relative price of the two articles, of upwards of $2,000,000, and to that extent may be said to form a premium for the home production.

The buildings considered indispensable for a large dairy, varying generally from 100 to 400 cows, are a milk-cellar; a butter-cellar; a churning-house, with an adjoining shed for a horse-mill, by which power the churning is always effected; a cheese-room, and a kitchen, in which not only the various utensils are washed, but the food cooked for all the hands immediately engaged in the dairy-work; to which may be added the sleeping and eating apartments, for, generally, on large estates, the whole of the farm establishment is usually kept apart from the mansion house. The last mentioned fact would not be the case in California, and would render the cost of a combined whole proportionably much less than if erected in different portions.

The size and site of the milk-cellar are deemed matters of the first importance, it ought to front the north, be shaded from the southern sun by rows of trees. The elder is usually employed for this object in Holstein, and might in moist soils be usefully engaged for the same object in California. We possess however, an excellent substitute in the large species of mallow which is so common, and grows so freely in our surburban gardens. These trees in Holstein are placed near the windows, with the object, as it is supposed, of keeping off the insects. We should prefer, however, to allow as much space between the extremities of the branches and the windows as is compatible with the attainment of the desired shade. A free curernt of air is almost as desirable as shade, as scarcely anything is so injurious in a dairy as a stagnant atmosphere, owing to its property of engendering mould, which if once formed, farewell all chance of making first class butter. A thatched, projecting roof is preferred, as it affords greater protection from heat, and in choosing the site, care must be especially taken that it is so situated as to be away from the influence of anything calculated to give origin to bad odors or to taint the atmosphere.

The size of the milk cellar will necessarily be regulated by the number of cows. It should, however, be always calculated to contain the produce of four milkings, and as the milk dishes usually occupy a space of two feet square, the produce of 100 cows, giving an average of eight quarts per day, which is a large average for Holstein, and would exceed that of California dairies generally, which may probably be taken at not exceeding five quarts, certainly not above six on the average. Taking, however, the high average of eight quarts daily, the milk of 100 cows would fill fifty milk dishes, of the size usually employed, at each milking, which would require a ground surface of 500 square feet, as the milk dishes are invariably placed on the floor, each milking being a little apart, which of necessity occasions some unoccupied spaces, some of which are purposely left to enable the dairy-maids to go through the requisite operation of skimming, saving, and removing the cream, etc. The floor, though sometimes flagged, is usually formed of bricks, exactly fitted so that no water may lodge in the joints, and is always slightly inclined, having a grated opening at the lower end in order to assist the washing and mopping of the floor, which is done invariably twice a day, although every avoidable impurity is carefully guarded against, every drop of milk which should happen to fall at the time of straining, etc., being instantly wiped up. An improvement has recently been made in some newly arranged dairies, by dividing the floor into compartments, by brick ledges of from three to four inches high, between which the milk dishes are placed in the compartments, (the lower extremity of which is fitted with a small sluice,) is filled with cold water twice a day, by means of a pump, by

which means the milk is kept so cool that all approach to acidity is prevented during the time required for the entire cream to "rise." In order to obtain the same result, ice is frequently resorted in hot weather, either by dropping a small piece into each milk-pan or by spreading trayfulls in the the dairy which by the absorbtion of heat and slow liquification sensibly lowers the surrounding temperature.

It is deemed essential that the milk-cellar should be sunk from three to four feet in the ground, be from 16 to 18 feet high. The best have an arched roof, as being more conducive to coolness than boards, and is furnished with two rows of windows, where possible, on the sides, north, east, and west, for the purpose of securing the best possible draught. The lower range of windows is composed of the ordinary wooden trellis work, having in addition to each in the inside frames fixed with gauze for the purpose of excluding insects, and outside with hanging shutters which can be lowered and elevated at pleasure. The upper range is furnished with glass sashes when light only is required, but consist of gauze frames where coolness is thought advisable. The butter-cellar is made light airy, and cool, and is also sunk into the ground, and the same precautions taken as in the case of the milk-cellar, in order to obtain a free current of air, for into it the butter is carried from the churning house in order to be worked, salted, and packed, after which the filled butter casks are arranged on clean boards, somewhat elevated from the floor in order to admit a free current of air, and are weekly turned and wiped.

Notes About Vallejo and Benicia.

In a brief visit to Vallejo we had the pleasure of calling on some of our friends engaged in stock raising, etc. Capt. J. B. Frisbee, has a fine Durham Bull, *Harold IV*, which has *borne off several premiums* at differeut fairs; *Solferino*, sorrel Stallion, four years old; thoroughbred; sired by Billy Cheatem. *Magentin*, sorrel mare, three years old; sired by Abdallah. *Mohawk*, two year old colt; sired by Mohawk. Also, a Belmont Colt, and some other stock. Capt. Frisbee is devoting much attention to the breeding of good stock. In his absence at the East, we were received by his agent Mr. Madden.

Mr. John North has a pleasant place about a mile from Vallejo, well worthy a visit. Our time, though limited, allowed us a run through his stables and fields, where we saw *Comet*, a three year old; Copperbottom Stock; will drive a mile inside of three minutes; a roan mare, with foal by her side, by Young Consternation; *Sal*, two year old, Abdallah Colt, color iron grey, trotting stock, clean limbs, heavy neck, and well proportioned. A St. Lawrence Colt, color bay, two year old, out of a small mare by St. Lawrence, is half sister to *Comet*. We noticed, also, a pair of Irish Grazier Hogs, fat looking porkers as one wishes to see; also a Berkshire Sow, and Pigs by a Suffolk Boar. Mr. North is paying much attention to breeding of fine horses, and is one of the foremost breeders in this section. He has about thirty acres of pasture, also a fine orchard in bearing condition. We noticed in the stable "*American Eagle*," a quarter blood Black Hawk Stallion, owned by Mr. Keith, of Napa; he is making the season between the two places.

Manuel Vera, owner of the race track, has "Young Consternation," Stallion, seven years old, sired by "Old Consternation," dapple black, and very compact, bred in Albany, weighs 1,150 lbs., and is 15½ hands high. Also a fine brood mare in foal to Young Consternation.

The race track is a mile long, full, and one of the best in the State. We hope to see some effort made the coming season to get up some races, and test the merits of the stock of Napa and Solano counties. Of this we shall speak again.

H. Conoly, proprietor of the Washington Hotel, has a handsome four year old colt, grey color, sired by "Gen. Taylor," out of a Messenger mare, is under care of Charles Welch, trainer. His step and actions remind one of the Old Horse who has won so many laurels in his day. Mr. Conoly is not behind in these matters, and is always at home, to see his friends, and for a drive in the country among the ranches, and fine stock, in which he takes a great interest. The "Washington" is the headquarters in Vallejo, and strangers as well as friends, are always made to feel at home, without any formality, as Mr. C. superintends his business closely.

BENICIA.

Mr. Nathan Doane is pursuing the dairy business exclusively, having an excellent grazing ranch, with some 40 head of American dairy stock, making from 50 to 70 lbs. of butter per week, a portion of which he will pack down this season. He is also paying some attention to fancy poultry, having some fine specimens of Black Spanish and other varieties, which are doing well. He has been troubled occasionally by some of his cows losing their milk. They dry up in one night, and seem to lose their milk by the next morning. Can any of our readers suggest the cause, or a remedy?

A disease has attacked some of his barn yard poultry. The head swells up, and the hen refuses all food for days, and then dies. On examination, a matter is found in the head, resembling the white of an egg cooked. Mr. Doane's ranch is about half a mile east from town, near the hills, and is one of the most pleasant homes about Benicia, as well as a prominent dairy ranch.

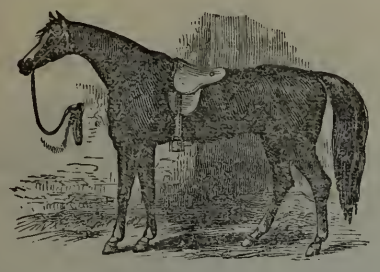
Mr. Alborne Allen has also a dairy ranch of about 80 acres, in the southern portion of the town, has some 30 head of dairy stock—American cows—and is making from 40 to 80 lbs. of butter per week, and during the busy season as high as 100 lbs. per week for market. The ranch is well located in the foot hills. He has also several fine brood mares, by an "Argyle" horse. Corn will not grow well in this section, it being too near the bay, but a few miles from here, farther into the valley, it does well, as the nights are warmer.

Benicia Cement Works Company.—This manufactory is now well under way, having been established some three years ago. The company comprise Messrs. Merrill, Wynkle & Pardoe, of San Francisco. Mr. L. A. Rider, the superintendent, showed us through the works

The rock is broken up by hammers, thence conveyed to the kilns, two in number, where it is burnt. These kilns hold about sixty barrels each; coke is used for fuel instead of coal. From the kilns it is conveyed to the crusher, from that to the elevators above, then down to the burr stones, from the stones it is conveyed by elevators to the bolting machines, where it passes into barrels, leaving it in a fine, impalpable powder. The barrels are then moved to the cooper-shop where they are prepared for market, where it commands about three and a-half dollars per barrel.

The barrels are make of redwood, and put up in the most perfect order for shipment to any distance. The rock is found in the hills around the town in any quantity. They are making about 300 barrels per week, the sale of which is at present limited, but the demand will increase in time, as it must become an important article among our home resources.

The American Hotel is still under the care of our old friend Bromley, whose cheerful face has greeted visitors to its threshold for the last ten years. This is the most popular and home-like stopping place in Benicia, and has everything for the comfort and convenience of those who may wish to visit the former Capital of California, and take a roam among the hills and enjoy the fine scenery and delightful climate.



On Breeding and Rearing Horses in California, No. 3.

The race horse, then, has been cultivated, or bred for the possession principally of two qualities, a high rate of speed in his paces, and chiefly in the fastest pace the animal can exert, namely, his gallop, and for his great general activity and ability to continue this high rate of exertion for a longer time, and to repeat the same performance oftener than any other breed or kind of horse. I enter into no arguments in proof of the thorough-bred possessing in greatest perfection these qualities, because I do not think the most strenuous advocates of the greater general usefulness of the more common description of horse, will attempt to deny the fact of these horses excelling all others in these qualities; if any do so they will only trumpet forth to general ridicule their own ignorance; but one other quality they possess, which I am not so sure will be freely acknowledged by many of the would-be horse amateurs of this country. I mean the transcendent beauty and nobility of their form, and their complete symmetry, which in a true specimen, shows that perfection of shape and formation for practical use, which the most scientific mathematical investigators have declared to be in greatest conformity with the theory of what should give ability to excel in those qualities which the animal is expressly intended to exhibit, namely, great speed, power, and endurance.

I have found, however, in exchanging ideas with various people here, that there is prevalent a widely different standard of beauty from that of the thorough-bred, and that the coarser form of a far lower bred horse meets the requirements of the bulk of our population, and that points, which to my eye appear as positive deformities, strike them as prominent items of beauty, whilst I have heard criticised as exceptional, and evidences of weakness, the very points which real judges have ever insisted upon as proofs of true formation, and advantageous leverage in action. Without entering into reasons *pro* or *con*, hy this or that formation is more u seful or advantageous than the other, for this or that purpose which breeders may have in view, it may be necessary here to glance at some of the main principles which have been discovered long years ago by breeders of horses, an hundred years before California was thought of as a civilized country, and which principles I shall demand, upon the credit of our forefathers, to be taken for granted, and to have laid down as axioms not to be disputed, on any such paltry grounds as the assertion of some backwoods' oracle of Young America, who professes his belief because he may not have seen, or may not have had brains to comprehend, if he did see, instances in support of those principles, which will be found in the large majority of cases correct, although exceptions may occasionally occur.

Let us bring forward then as an axiom, or general rule granted, that if in breeding animals we desire to perpetuate any particular quality, we are safe in using as breeders animals descended from a long line of known ancestors, all remarkable for the possession of those qualities we desire, rather than animals which, though in themselves possessed of the qualities we want, may have only been accidental or exceptional instances, and for that very reason unable to reproduce themselves, or to perpetuate those qualities for which they are admired; they have shown only accidental excellence, and not that innate and improved quality, the production of many generations, whose nature it has become identified with. This is what constitutes the value of pure breeding, and which may easily be exemplified by reference to any race of animals which in their propagation have been subject to the influence of man for purposes of improvement. Take as illustration the breed of horses we speak of, the "thorough-bred,"—many a colt, the produce of a thorough-bred horse and a coarse, common mare, follows so much the pure and strong blood of the sire, as to be equally or even more handsome in appearance than the sire, and also possesses in a high degree those qualities of speed and endurance for which the thorough-bred is remarkable; but keep that colt for a stallion, and then will be evident the deteriorating influence of the cold blooded dam, it will be soon clear enough that this half-bred animal cannot perpetuate either the form or qualities that he himself possesses, and his progeny will in nearly every instance be inferior to himself, and will after a cross or two, run down to the common standard of mongrel animals; from ignorance of this law results one of the commonest dis-

appointments to inexperienced breeders, and it has been productive in many instances of great dissatisfaction with the thorough-bred sire, who is always sure to get the blame of the bad "three-cornered" animals which are the only natural consequence of such ill-judged and badly assorted unions. Although I decidedly advocate the thorough-bred sire as the grand instrument of improvement in bringing out the qualities for which that breed is remarkable, namely, speed, activity, spirit, endurance, and beauty, and especially for all saddle purposes, still people must bear in mind, and consider beforehand, what sort of a horse they want to breed, and what they intend doing with him when bred; and they are not to run away with the notion that the thorough-bred race horse, because he is acknowledged all over the world to be the finest and best animal of the equine kind, will on that account be the best cross for *every kind* of mare, or to breed horses for every kind of use and service. No! if they want horses for heavy, slow draught, for plodding, sluggish work on the farm, or the base uses of the dung cart, or to live on thistles, turned out on bare pasture like a dustman's donkey, what in the name of folly do they talk of thorough-bred for? the thorough-bred is a gentleman's horse, fit for gentlemen's work and gentlemen's treatment, to which he will do credit, but the man who wants a horse to earn his living by hard work of common hauling, must stick to Kinuck ponies and Canadian trotters; crossing with them will pay him, with the race horse will break him. And up to the present time no error has been more common than this; owners of great heavy cold blooded draught mares, have bred their heavy headed, straight shouldered, sluggish tempered, but steady, true pulling, useful team animals, to the race horse, their very opposite in every respect of form, constitution, temper, and temperament, and if they get a colt (pray understand that when I say *colt*, I mean a *young male horse*, and *not* a male *or female*) nothing could persuade them to cut him. Oh, no! he must be kept for a stud horse, and wofully disappointed they are, when they see their stud horse at three years old, and find him neither fish nor flesh, neither fit for the land nor the sea, and probably not saleable for more than the service of the sire originally cost. Of course such men blame not their own folly in attempting impossibilities, but the thorough-bred horse for not being able to perform them, and for the rest of their time their cry is, "the thorough-bred horse is good for nothing; look at that splendid old mare of mine, a better never hauled a truck, and here see the miserable rat she dropped, that cost me an hundred dollars. I put her next year to a common Canadian horse for fifteen dollars, and she had a better one;" why of course she did, for that's her sort; she "hits" with that blood, and produces an animal resembling both sire and dam, which *resemble each other*, and not a mongrel, with a thorough-bred head and a draught horse shoulder, and in bad proportion every way. The natural fitness of things must always be considered, and on the kind of mares people have will depend the sort of horse they must breed from, and then they have, besides, to consider how far their means will enable them to do justice to, and bring to perfection the animals they do breed.

It seems to me that if a man owns two or three high-bred, fine mares, likely to breed advantageously to a thorough-bred horse, that unless he is well situated as to a place, and can afford to wait, and in meantime can expend liberally on the care and feeding of his young stock, until they are matured, he had far better sell his mares to some owner of a thorough-bred stud horse, than speculate with them himself; to breed race horses or crosses of the thorough-bred, requires capital, conveniences, and attention, which few farmers can afford, and without these adjuncts it will be found generally an unprofitable business. If there be a market for the animals, a demand for fine, showy, beautiful, spirited horses for saddle use, for driving in carriages and buggies, in short for the uses of monied people who can afford luxury and style, the "three-quarter" and "half-bred" horses will bring a price which will pay for the care and trouble the proper raising of them requires; and to those who have genuine thorough-bred mares (a scarce article, my friends) there is always the additional chance of extra profit in obtaining a valuable race horse, or "sire" who may realize a handsome income by standing for service; in these circumstances, and with proper capital and facilities, as I have said before, breeding from the thorough-bred will probably pay well.

But on the other hand, taking a plain, straightforward view of it, if we are not to have a demand for the above mentioned kind and class of horses, if the national and general taste is satisfied by harness horses with the paces and style of a butcher's pony, able to trot a couple of miles on a 2:40 gait, with a big head and a curly tail, and a disposition of that docility, or as some people might call it, "sluggishness," as to be equally useful in hauling dung, as in

winning "a purse for trotters," these breeders had better entirely eschew the thorough-bred and all crosses of him, and stick to the Kinuck ponies and French Canadian trotters; they are first-rate for those purposes, and for those who like them, and they will always readily sell for a proportionately higher value than any other kind of horse, upon just the same principle that here in California, a man who can do all common hard work can invariably earn a good living, whilst many a learned professor of classical attainments would starve. These considerations will be what amateurs and breeders must settle *with themselves*, and I will now go on more fully to review some of the peculiarities and properties of the breed of horses known as the thorough-bred, and will endeavor to show the sort of horses which may be bred from them, in what qualities they may be expected to excel, and wherein they will be found deficient, so that people may know what is reasonable for them to expect in making use of these horses for sires, and no longer lay the blame of their own bad judgment in crossing, upon the name of thorough-bred.

The first attribute to which the genuine race horse lays claim is speed, in addition to which he is expected not only to exhibit that speed, but to be able to keep it up for longer distance, and to repeat the performance oftener, at shorter intervals of time, than any other breed of horses. These qualities or modifications of them, are the especial excellences of thorough-bred horses, and they are what is principally sought to be ingrafted on the different colder blooded breeds, which although deficient in these, have other useful characteristics, suitable and desirable to be amalgamated with them. Furthermore, the stock from which the thorough-bred by cultivation originally sprung, being the most beautiful and symmetrical, and *finest* natural breed or race in the world (the Arab), our thorough-bred inherits his beauty of form, fineness of coat, nervous energy, and vivacious temperament, and for uses in which these qualities are of any value, a high proportion of the race horse blood is desirable, but as I said before, if you want your horse to haul dung, unload cargo out of ships alongside of wharves, or show great *endurance* of being "larruped" with an ox whip without almost jumping out of his skin, then the thorough-bred "ain't thar"—that is not his business.

Now I find throughout California, and indeed the United States generally, an "irrepressible conflict" going on between advocates and opponents of the thorough-bred horse, as a means of general improvement, and on both sides of the question there is displayed an amount of prejudice and clap-trap oratory very amusing to the looker on; specious arguments on both sides, and probably founded on exceptional cases are brought forward without end, and self-interest *alone* being at the bottom of the opinions of both the belligerent powers, neither party has the smallest intention of being convinced by any evidence; they will be of the same opinion still, and "deaf to the voice of the charmer, charm he ever so wisely." But for the sake of the general public, who may not yet have taken sides, and are nevertheless desirous of breeding good horses, for sale or use, I propose to review these different opinions, and if possible, sift the truth from the falsehood on both sides.

The owners of thorough-bred breeding horses, and men fond of racing, or running horses, will believe in nothing but the thorough-bred, and appear blindly to despise in every place and circumstance, all other horses but thorough-breds, or those possessing a great proportion of that blood, whilst on the other hand, the breeders of trotting horses, and the drivers and trainers connected with the trotting turf, for the most part profess the greatest contempt for a breed of horses which *they say*, cannot trot, and are in general of no use but for racing purposes. Now, although there may be foundations for the opinions of both parties, I consider that they are about equally led away by prejudice, and allow me to hint, like Mr. Chucks, the boatswain, "in the most delicate manner in the world," *by ignorance* of facts outside of their own immediate experience. The trotting horse amateur, talks nothing but "Morgan," or "Black Hawk," and strenuously urges the use of stallions of these strains as the only kind likely to produce fast trotters, and good useful horses for general work, and condemns the thorough-bred as a spindle-shanked, spider-legged weed, fit for the one purpose of the race course only, and likely in his progeny out of trotting mares, to deteriorate rather than improve. I will then take up *seriatim* what I am in the habit of hearing as the stereotyped arguments of both these high contending parties, and dissect the various statements *pro bono publico*. I myself, probably differ somewhat from both, and shall have no hesitation in stating my own opinion, giving the reasons which have led to it, and then leaving the reader to draw his conclusion as to its correctness or the contrary.

[To be continued.]

Julian Sylveyra's Treatise on Tobacco.

[CONTINUED.]

THE two most robust should be preferred, leaving entire all above it, covering the wounds of the trunk or stalk with manuring from the fund in the ditches, a portion retained for this purpose, by which operation the shoots will increase with more energy. These shoots should be cultivated in the same manner as the first pruning and topping when the flowers appear, by which process the leaves will increase in a very remarkable manner, and will give another harvest, which, if not so valuable as the first will nevertheless compensate liberally the labor that it has occasioned—selling quick for a class of fillings. These leaves vary much from the first cut by their different form, being longer and more acuminated, the fibres coming out from the principal nerve of the leaf which mechanism is more regular in the leaves of the first cut. A third cutting or harvest can be made from the same stalks again, cutting below the surface of the earth, but good production cannot be obtained for reason of the debility they have experienced, and for the revolution nature makes at the beginning of spring, at which period the third harvest is made ; it would be better to turn the stalks in again and arrange things for plowing and harrowing the land in the same manner as it was done in May. In making the second crop or harvest, either a parallelogram or a portion of plants should be left to seed, that a reproduction of seeds may be obtained for the following harvest, of which collection and preservation I shall hereafter speak.

Two methods are known for selecting tobacco, the one being natural, the other artificial. The last is done at the moment the leaf is perfectly ripe, at whatever time, gathering during the night the number of cujis or sticks that can be benefitted during the following day, placing them in the night upon the scaffolding places that have been made for ripening, that they may receive the night dew, and be softened into a state for culling, opening and selecting. In the morning they should be gathered up and placed in armfuls in a box made of twigs or slats from whence they should be taken for assorting, which should be done in a sheltered place. The natural method, is when rains have begun, and the moisture of the atmosphere has made the leaves moist, in which state the cujis should be taken from the props or scaffolding, and the tobacco collected in armfuls to be carried to the sheltered place that should be prepared to receive it, and which should be placed upon a dry heap of leaves, to protect them from the moisture of the ground, the chinks of said place should be guaged with twigs, to prevent the entrance of the air and moisture. The armfuls should be placed to the sides, placing the points of the leaves within, in order to preserve them moist. Two files of handfuls should be placed with sprouts toward the wall and exterior part of the quarter, forming a heap, that should not exceed two yards in highth, the natural weight of which will be sufficient for the pressure that ought to be effected in the first fermentation of the dry leaf, communicating to itself at the same time the aroma of the plant concentrated by drying, and which disenvolves itself in consequence of the moisture which has softened them. It is always necessary to form a place, or shed, where it can be sheltered with more nicety, and the precious fruit of so many labors be taken care of with more efficiency.

The time the tobacco should be in this state, will be needed by the proprietor to clear and put in order his fields, to supply the slats, food and provision of eatables for the time of assorting, which should be performed without interruption. These measures will save much expense. Also the field of fields should be renovated, giving to it the same labors, making the same ditches of furrows and placing in all of them the pure horse manure, which had been collected daily during the preceding year, leaving them uncovered some days, and when well soaked, covering them in the manner above referred to.

The seeds which are destined for reproduction will be already ripened, (which will be known by the yellow color of the capsules,) despoiled of the flowers which crowned them. They should be collected, breaking the stalks with the right hand, and placing them in armfuls upon the left arm, when the volume is much, it should be placed in baskets to be carried to the tobacco house, when the bundles should be fastened for hanging on the cujis in the same manner as the tobacco was left to dry perfectly ; they should then be examined and placed in barrels until the time of sowing.

Thus the workman, having finished these cares, should commence assorting, taking at night from the pile all the tobacco that can be stripped in a first working, which should be deposited in some boxes constructed at the side of the wall of the saloon, quarter or place appropriated to this business. They should be formed of withes fastened at some distance in the manner of weaving, with corresponding divisions numbering from two to four. In the the morning the laborers should be placed on some low seats, placing before each one a portion of stripped leaves which should be opened and four separations made, according to the size and quality. An individual, intelligent in this business, should examine the two most superior, and divide them with great care, into the first and second, the overseers who are intelligent individuals, and have no other office in assorting, should collect and form the bundles in the number of leaves the proprietor wishes, since they have no fixed number in market. Every night should be reported the operation of stripping, because it is more economical to do it when all are together and attending to the same thing, clearing the place of the stalks, litter, etc., which would impede the laborer during the day and having the assorting done with the greatest possible neatness.

When the overseers of the third and fourth class have made a great many bundles, they should go depositing them in their respective boxes, with the heads turned out, in order that the soft points may

not be mangled and broken, caring always to arrange them so that the air may not penetrate them. Also when the boxes first and second contain sufficient, by a prudent calculation, to make two or three tierces, they should be wet or sprinkled in the following manner: A bunch of cujis of tobacco should be formed half a yard from and one in width, upon which should be placed leaves sufficient to cover it. Then a fine sponge should be taken very wet, lightly soaked in a liquid, and raising the hand, the said leaves should be bedewed with some force, in order that the dew may enter the leaves. Practicing this operation upon both sides of this first bed, and afterwards placing the other, should be placed upon the first, and should be bedewed upon the top, taking that from underneath and placing it upon top and follow, doing this to the conclusion, covering them with a cloth in order that they may not lose the odor of the composition of bitumen. Having placed a regular quantity of dried leaves of tobacco and aromatic drugs in a barrel of river or well water, which infusion should be stirred many times the first and second day in order to press out the aroma of the drugs, after which they should be left quiet until the liquor has affected a sensible fermentation. The barrel should then be uncovered, and the liquor already pure, should be drawn off to make the irrigation and operation of bitum or bitumen.

The tierces are made in various ways, but the shortest and most regular, is making a box upon a square of coarsely worked timbers, upon whose sides should be placed five pillars for props, leaving the figure in a mould or box. Its size should be regulated to the size of the leaves, placing two that they may touch at their points, lengthening or contracting said mould or box for the heads, from or to the tenon that supports it, and by one spile or peg that subjects it to the place desired. In the bottom of said box should be placed three cords of Majagua bark, with which the tierce may be fastened, and upon which should be placed the two principal slats, and in the sides and subject to the pillars in stays should be placed the other two which form the tierce. The beds of handfuls should be placed with their heads turned outwards, and their points inward, distributing them proportionably to the number it has to hold, according to the quality, and in three beds only. Placed in this order, the staves or slats are doubled from the sides in form of a packet, following those heads that touch in the centre. The cords should be bound with a rational force, to the end that they may not be too closely bound, or the handfuls injured by too close pressure. After this process, the pillars should be loosened by the wedges that retained them, and they should be placed upon some hides or skins, to give them the rope which finishes the process. The tierces should be numbered according to their quality, and should be left some time to the sun to dry the moisture from the slats, being moistened in order to form the tierces: and lastly, they should be placed in the warehouse or place of deposit, upon sleepers, to keep them from the moisture of the ground, being careful to not place too many upon each other, because too great weight might cause them to lose the form, the regular form with which they ought to come from the box, perfectly well made. In the same manner they should avoid being broken, as that would injure them very much.

In the third and fourth class, the operation of bedewing differs, as in these the sheaf or bundles receive the dew although placed upon the same benches, sprinkling them for the night, keeping them piled some time, that they may soak and communicate to each other the balsamic odor of the composition of bitumen.

The tierces of these classes are made in the same manner as the first, with the difference of contracting the box to the size of the leaves.

[To be continued in next number.]

Mining.

Mining, so far as jobbing and speculating in shares, is gradually increasing, though far from reaching the state of excitement which we anticipate witnessing by the ensuing fall. So vague are the grounds for bearing and bulling special mines, that the transactions of a single day would, if copiously dwelt upon, fill a good sized pamphlet. Some will make a living, some will make a handsome pile out of the excitement, and many will GET STUCK. A few months will show how far returns may be expected from the bulk of the Companies, which, if they turn out as we anticipate, very much below that of the sanguine holders and proprietors, a collapse will take place in the course of the winter. We advise all who have spare cash, and who feel desirous of investing in the laudable enterprise of mining, to wait the arrival of that season if they wish to make investments on fair and profitable terms, as by that period they will have seen what progress or want of progress has occurred with the earlier, more enterprising and sanguine operators. Unproductive speculation is ever an evil to any community; in the present case, however, no serious injury to the general interests of California can occur from the present mania, for it is, we believe, found on a thoroughly sound basis that ultimately will be most profitable, though how early or how late that time will arrive is entirely dependent on the knowledge, capacity and energy of the parties actively engaged in developing this source of wealth. As far as our observations go, indiscreet, go-ahead precipitancy appears to be the prevailing rule, whilst steady, cautious, business-like perception may be regarded as only exceptional cases.

ACKNOWLEDGEMENTS—SEEDS FROM THE PATENT OFFICE.—We have received from the Agricultural Department of the Patent Office a variety of seeds, which will be forwarded free to subscribers, on application, with stamps to pay postage. Tobacco Seed, two varieties; Onion Seed, two varieties; Lettuce; Turnip, four varieties; Parsnip; Cabbage; Carrot; Manzel Wurtzel; Spinach; Radish; Watermelon; Squash; Cucumber; Corn; Peas, etc., etc.

From Hon. A. A. Sargent, M. C., Washington, we have received plants of the Chinese Grass Cloth Fibre, which have been planted for trial; from Mr. Scales, Sacramento, sample of Smoking or Chewing Tobacco; from G. W. Campbell, Deleware, Ohio, Catalogue of Grape Vines for 1863.

The Wool Market.

Up to the time of writing the receipt of wool of this year's clip has not equaled in quantity that brought forward at the same time last year. There is a perceptible improvement in the general quality, both on account of the more favorable character of the last season, and also on account of the perceptible improvement occasioned by the intermixture of better blood, which if steadily continued for half a dozen years longer will double the average value of our wool growth from this circumstance alone, to say nothing of the increased numbers which will occur during the same period of time.

Prices have declined a little, and amongst manufacturers, agents, and merchants, both here, at the East, and in Europe, it is generally anticipated that if prices rise at all, it will be the result of speculative manufacturers being in fair supply, and determined to buy cautiously in future. Scarcely 500,000 lbs. have as yet come forward, selling at prices ranging from 18c. to 25c. per lb., a few very choice, small parcels may have obtained 4 or 5 cents more—the exact rates being reserved.

The clip of wool for the current year, it is calculated, will amount to 9,000,000 lbs., and possibly will exceed that weight, with a fair prospect that the current prices will be maintained throughout the year, and perhaps for another. If, therefore, we should be favored with another mild and comparatively rainless winter, similar to the past one, we may anticipate that the clip of 1864 will exhibit a still larger proportionate increase not only in quantity, but also, we hope, in quality.

The small quantity which has so far been brought to market has been accounted for on the grounds that this spring has been cold, and shearing has in consequence been deferred to some extent; this is no doubt true, and we commend the caution. We suspect, however, that the main reason is owing to keeping it back in order to see how prices are likely to rule for the season—respecting which we may remark that we do not think that prices can advance much unless it be the consequence of speculation, which, if this should prove to be the case, it is quite as possible that the grower may suffer a greater collapse which invariably occurs as the result of an undue amount of speculation, as be gainers by the advance of prices thus artificially induced. The wool product of the world is not easily "cornered," and propellers can be put into requisition to any practicable extent to supply the mills of the Eastern States with wool from Europe if prices should justify the operation. The market is now good and sound, and we commend to their attention the trite adage, "that a bird in hand is worth two in the bush."

Hide and Tallow Market.

During the course of the month some little fluttering occurred amongst the Hide dealers, the price for Dry at one time reaching 15c., but has since receded to 13c. and 13½c. Green Hides, $3 87½ to $4 for prime, large size; smaller ones one third less. Kips, $1 each. We are anxious to draw the attention of stock raisers to the fact that the hide of large size is the most valuable part of the animal, and that very much is lost by sending cattle of immature growth to market. We submit the following copy of the Liverpool Hide and Skin Market:

HIDES, OX AND HEIFER.

93 lbs. and upwards...	4½d.	Cows, light.....	2⅞d.
83 lbs. to 92 lbs.....	4¼d.	Cows, heavy.....	2¾d.
73 lbs. to 82 lbs.....	3⅞d.	Bulls.....	2⅝d.
63 lbs. to 72 lbs.....	3d.	Badly flayed.....	0d.
54 lbs. to 62 lbs.....	2⅞d.	Calf skins, per lb. 6½d. to 5d.	
53 lbs. and under.....	3⅝d.		

From which it will be seen that a hide of 62 lbs. is weight for weight scarcely worth more than half that of a 93 lb. hide. Full grown Spanish cattle reach that weight within a pound or two, whilst ordinary American cattle average from 60 to 70 lbs. It may be remarked that the penny of the above scale equals two cents. The relative value to the farmer of fat hide and beef we shall notice at an early day in an article devoted to the purpose. Tallow dull.

A Fine Wooled Flock.—In the course of the past month we have had handed to us by Mr. G. A. Jones, the superintendent of Mr. Samuel Brannan's ranch and flocks, at Nicolaus, Sutter Co., some very fine specimens of wool, which we shall be happy to show to any one desirous of seeing what can be accomplished in wool by the aid of California climate and pastures. The most gratifying fact is the enormous improvement which occurs with the descendants of American sheep crossed with the Merino, by which a greater weight of clear wool is obtained per fleece, and that of a quality, though not so fine as that of the Merino ancestor, but of a quality in more general demand, and will obtain also a higher price. We would like to see some of this wool worked up for exhibition at the next State Fair, into fine tweeds and other superfine goods, as products of the finest spindles and best loom at the Mission Woolen Mills.

Sherry and Port.

The statistics of the exportation of wine from Spain and Portugal during the past year have been received. Of sherry, the shipments from Xerez de la Frontera were 52,616 butts; and from Port St. Mary's 20,086. Of port wines the total was 29,724 pipes; 24,834 to Great Britain. The facts here set forth ought to stimulate our wine growers to put forth every possible exertion to introduce the manufacture of sherry wine, as it is rapidly displacing all other strong and dry wines. In less than half a century, the exportation from the places named, of sherry wine, has more than quadrupled.

To Wool Growers.—Those desiring a superior quality of hand or machine made wool bags, can find a complete assortment at Messrs. Lewis & Detrick's, Clay street, who are prepared to furnish to any extent. See advertisement.

JUST as we are going to press, the ever thoughtful 'Squarza' has sent in a supply of his famous "Anti-Divorce" and "Appetizer Punch," from his manufactory in Liedesdorff Street.

McDonald & Co. seem also to remember the publishing day, by sending into our office for the benefit of the typos, samples of his celebrated "Vermont Cider."

FINE ARTS.

THE LARGEST ASSORTMENT OF FINE ENGRAVINGS OF ALL Styles, including a splendid variety of Sporting Subjects, can be found at the Store of

ROOS & WUNDERLICH,

Depot of Goupil & Co.

219 Montgomery Street, (Russ Block.)

S. R. TRASK & CO.,

FORWARDING AND COMMISSION

WOOL DEALERS.

Office, 525 Front Street,

Corner of Jackson, (In Sullivan & Cashman's Building,)

SAN FRANCISCO.

☞ Sacks and Twine furnished when desired.

SHEEP FOR SALE.

1,000 HEAD OF AMERICAN EWES, now dropping lambs by thoroughbred Merino Bucks, will be sold at a bargain, with the range, if wanted. Also, five fine French Merino Bucks and seven fine French Merino Ewes. Apply to

STEPHEN OTIS,
45 Clay Street, corner Drumm.

FISHING TACKLE.

Just Received and for Sale, by

R. LIDDLE & CO.,

418 Washington St., SAN FRANCISCO.

The largest and finest assortment of Tackle on the Pacific coast, viz.: Flies, Hooks on gut and gimp; Rods and Reels, both for lake and river fishing, and every article required by the sportsman, at reduced prices. Liberal discount to the trade. Call and see our stock before purchasing elsewhere.

EMPIRE LIVERY STABLE,

No. 527 KEARNY ST.,

(Between Sacramento and California,) SAN FRANCISCO.

Horses, Carriages, Buggies, Etc. to let. Every attention paid to Horses on Livery. Carriages always ready at the Occidental Hotel and at the Stable.

WADSWORTH PORTER. TOM R. FLENNER

GEORGE W. CHAPIN & CO.

MALE & FEMALE

EMPLOYMENT OFFICE,

— ALSO, HAVE A —

Real Estate, House Brokerage & Stock Agency,

KEARNY STREET,

Lower Side Plaza, SAN FRANCISCO.

DR. SMITH'S

Water Cure and Phrenological Institute,

620 Clay St., bet. Montgomery and Kearny.

This is the only Regular Hydropathic Establishment in San Francisco where all the appliances of Eastern and European Water Cures are used, and the mode of curing Diseases is conducted according to the THEORY and Practice of the Hygeio Therapeutic or Hydropathic College of New York. Here we are thoroughly prepared by all the various Water Appliances, Electricity, Motorpathy, Systematic Exercises, and a Nutritious and Wholesome Diet to treat and cure all Acute and Chronic Diseases to which men are subject—especially all Rheumatic, Billious, Dyspeptic, and Lung Diseases; together with all general or special weaknesses peculiar to males.

At our LADIES' HEALTH INSTITUTE, No. **10 Sutter Street,** we continue to give Baths and treat Ladies for all general Disease, whether Dyspeptic, Neuralgic, Billious, or Pulmonary. But the treatment of all Nervous Conditions and Weaknesses peculiar to Females, has for nearly Five Years, in California, been made the speciality of our Institution—and as our Establishment for the treatment of Gentlemen is now separate from the Ladies' Health Institute, we are better and more pleasantly prepared to treat Women than before. We are fully warranted in saying that in no class of diseases have we experienced more speedy and positive cures. We have seldom found it necessary for Ladies to remain longer than four or five weeks, to be permanently cured. Terms—From $15 to $25 per week.

BARLOW J. SMITH, M. D., Physician and Surgeon.

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CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I SAN FRANCISCO: JUNE, 1863. NUMBER 6.

[For the Wine, Wool and Stock Journal.]

Fermenting Vats.

BY ARPAD HARASZTHY.

The dreary, cold, Winter days have almost been forgotten! Lovely Spring, with its beautiful flowers, is almost past, and hot, oppressive Summer is at our doors! We wine-makers have already ploughed our vineyards five times, hoed all the vines and destroyed all the suckers. We already see the small grapes swelling with their generous juice, while the mother vine decks herself with her white blossoms. We have wrought, with the sweat of our brow, the vine, so far, successfully; but what was our aim? To make wine. You have not a minute to lose; you must now prepare your wine vessels so that your vintage will find you prepared and waiting.

It is yet too early to speak of wine-making; that we will leave for our numbers of August and September. We here will only occupy ourselves in regard to the implements necessary for wine-making. These implements consist of a Crusher, Fermenting Vats and a Press. If it is white wine alone that you intend to make, you only need the press; but if you make red, you must have them all—crusher, fermenting vats and the press.

Your vineyard bears for the first time, to any amount, this year. Before this, you have always sold your grapes, as they were in small quantities; but now an ambition has grown into you to make wine—a wine that is genuine, that is pure, one that is made by yourself. You wish your wine to be red, and you look about you for fermenting vats. But where to find out how they are to be made? How large must they be, and how many of them must you have? Another sweat arises on your brow. To read all the works on this article would take you months, during which time your vintage will have passed, and with all these learned works you will not be the wiser, not one of them agreeing with another. Address yourself, then, to some practical man, brought up in the business, whom you consider able to give you the required information. We have, in our personal experience, tried maybe, every kind and system of fermenting vats that have been constructed and are used. The number of these is very great, and each one is a hobby to its partizans. But with all the talk of these partizans, and all the new systems and perfections, there still remains ample, more than ample, field for invention. After having tried vats made of mason-work, as they are in the south of France, open wooden vats, closed wooden vats, half closed vats, vats with Mlle. Gervais' appendage, and many more which are too numerous to mention, we come to the conclusion that the best practical vats for California are those having a double head. These we tried most efficiently last year, and the result was to our entire satisfaction, and to them we give our preference. Their form is conic, like ordinary fermenting vats, with the greatest diameter at the bottom. Three-quarters of the hight from the bottom there is the first head, which must be made so as to be able to take it out and place it back at will. This head is made out of stout planks and pierced with innu-

merable half-inch holes; we call it the false head. After this comes the head itself, which is on top and not movable, but fixed, like the head of a barrel. This must be made of as stout timber as the false head. In the center there must be an opening, either round, square or a parallelogram, occupying a space of about six square feet. We prefer the round opening, as it affords much ease in closing the vat tightly, and in taking from it, after fermentation is over, the fermented remains. The false head has an opening exactly similar to the above one, with the only difference that it is pierced, like itself, with holes.

When the grapes are crushed and the vat is full within a few inches of the false head, its opening is closed down tightly, so that no pressure, however great, caused by the fermentation, can displace it. The top opening must also be closed tightly, but not hermetically, unless you ferment with a syphon, so as to prevent all contact with the air. However, if it is with or without the syphon, there must be a two inch hole in the centre of the top opening, to let out the carbonic acid or to attach the syphon.

Each vat should also have a door at the bottom, large enough for a boy to crawl in. These doors are almost indispensable for airing and clearing. The peculiar advantages of vats thus constructed are, that there is no souring of the crust as in open vats, for there is no crust. There is no stamping down this crust, composed of the skins and stems, by naked men, who go in, as in France, up to their ears, and dance to the sound of a fiddle. This unclean manner is done away with, for as the stems and skins tend to rise during the fermentation they are kept down by the false head, while the swelling and boiling must rushes through the holes. The whole coloring matter of the grape, and its extractives, is then given up to the wine, and that, too, with no risks and with no toil and unclean labor. We are not one of those who believes that everything goes off with the fermentation, and even if we did, the manner is not less unclean and disgusting. What seems strange to us is that it is yet so universally carried on in a civilized country like France! Yet such is the truth, there is not a red wine in France, and especially in the more distinguished vineyards, that is not made thus. Whenever we drink a glass of delicate Bordeaux, or fine warm Burgundy, we always imagine our glass is a vat, and almost see a host of little pigmies in it, stamping, jumping and dancing like so many little demons. Happily our imagination is not very vivid, or we could not finish the wine. Besides the advantages already cited these vats have another which is fully as important. The fermentation is equal throughout the whole mass, and goes on regularly, especially if carried on by means of the syphon. The fermentation is thorough, the most important item in making wine. There is no evaporation and loss of spiritous parts of the wine, no loss of its boquet, for, if you have a syphon, the contact with the exterior air is completely cut off, and if you have none the hole on the cover is so small that there is no possibility of having a current of air going through it to displace the carbonic acid lying on the surface of the fermenting must. The wine, then, can freely acquire all the qualities that nature is capable of giving to it.

Now that we know what kind of fermenting vats we are to make, the next question is, how large must they be? and how many must we have? then how much will they cost? Your vats may be made larger or smaller as you choose, and according to the amount of labor you intend to use in gathering your vintage, but they must always be made so that with one day's gathering they be full, never make them larger. If you have a large vineyard and plenty of hands make large vats, the fermentation will begin more rapidly; it will be more equal; there will be less labor and trouble in taking out the skins, but only make such vats as you can fill in one day. Vats that are being filled two, three and four days are only prejudicial to the quality of the wine. In this case the grapes of the first day's gathering start their fermentation six hours, and while this fermentation is going on, in comes new loads of grapes which are cold, they lower the temperature of the must and it stops fermenting considerably. The harm thus done is immediately recognized by the person the least acquainted with the phenomena of fermentation. Then choose your vats or rather their size according to the number of hands you can dispose of. You can never come to an absolute and rigid result in your calculation of labor, for sometimes there is plenty, while at others it is neither to be had for love or money, but get as close an approximation as possible. One man can gather and carry fifty yards, about 700 pounds of grapes in a day, a little more or a little less. It takes a little more than 6000 pounds to fill a thousand gallon vat up to its false head; this gives you nine hands to pick grapes to fill a one thousand gallon vat in one day. If you are certain of being able to get that amount of labor and keep it through your vintage, make thousand gallon fermenting vats; if you can get more labor make them larger, and smaller if you

cannot get as much. Now the number of vats you need depends wholly upon the amount of bearing vines you possess. From their fourth year one can safely reckon on ten pounds per vine; this gives an approximation to the quantity of your crop; the number of vats then required is easily found. We cannot calculate upon fermenting more than three times during one vintage in the same vat, for each fermentation occupies a space of time equal to six days,—five days at least, when everything is to the best, the weather fine and warm, and the vats in a room where the temperature is constant day and night. This for the three fermentatiens occupies eighteen days, and the weather seldom holds out without rain longer during the vintage. Now to find the number of vats you need; determine first on their size, then get an approximate of your crop of grapes, multiply the number of pounds your vat holds when full by three, and divide your approximate by this result; you will have the number of vats required. The cheapest and best wood in California for making fermenting vats is redwood. This wood has little rosin in it, and not much bitter matter, much less than any other California wood I believe. This renders it very fit for the use we wish it for. Both rosin and bitter matter are communicated easily to the wines, and when once possessed of these tastes they never get rid of them. The redwood has another advantage; it does not rot in the dark and in humidity. A redwood vat will last forever. But you must not imagine that you can immediately make use of your redwood vat; not by any means; it must be thoroughly steamed on the inside, or the staves must be steamed in a steam box before being put up. This steaming extracts all the tannin and all the bitter stuff the wood has, and then you can go on in all security. If this wood be well steamed your wine will not have the slightest bad or disagreeable taste. Great care must be paid in placing these vats on their supports or stocks; some six to twelve thousand pounds cannot be placed anyway without danger to what it holds. The greatest quantity of wine is spilled just by a little neglect in placing. You should have your stocks made so that half the weight lies on the bottom and half lies on the staves. If all lay either on the staves or bottom it would be likely to sprain the chime, and necessarily cause a leak of the very worst description. The best shape for stocks we think is two-squares, made out of good stout timber; a small one for the bottom and a large one for the staves; the former to be in the latter and to cut it at right-angles. Each vat should be placed three full feet from the floor, so that the wine might be run right off into barrels or pipes without the aid of buckets or anything but a funnel low and wide. Every vat ought to have its own faucet, and that should have a screw for a hose to be attached to. These faucets should all be the same size exactly, so that one hose fit them all. We cannot recommend too often for wine-makers and wine-dealers to have but one-sized faucet in their establishments, and that one of a large size.

This ends what we have to say in general about vats used for fermenting wines. The reader will perceive that we have not entered into the enumeration of the different sorts of vats, and by far less describing them. We have simply chosen the kind of vat our experience has convinced us to be the best, and described it. The history and details of the different systems of fermenting vats we will present in some future number.

CRUSHERS.

A crusher generally consists for crushing grapes of two wooden rollers of various diameters as the possessor fancies. The diameter of the two rollers are equal. The rollers are turned by hand, or by means of a belt, or by steam, or an endless chain, or water power. They are covered with small teeth of iron which draw in the bunches of grapes. The rollers which run towards each other must just be separated enough to let the seeds pass between them without their being crushed. This is very necessary as the seeds contain bitter oils which are very apt to communicate their disagreeable taste to the wine. Crushers are very useful, for they are clean, and when rightly made and managed will do the work with great economy. In Europe the only crusher they use is the feet. In some parts of Burgundy they are getting a little more delicate, and have boots on expressly for crushing. As a general thing, however, all over Europe they prefer crushing with the naked feet, as it does not crush the seeds. We We do not think that that system will be adopted by us, as it is not only very unclean but also very costly. It is nothing more than small talk to say that the seeds crushed by a well-made crusher will injure the wine. There are so few crushed in proportion to the mass of wine that it is quite absurd. The rollers should be made so that you may make them near each other, or go from each other. Throw into your box grapes, make the crusher go, then examine the seeds that have passed through; if any are crushed separate your rollers.

Crushers are all of the same principle, and generally only differ in unimportant details. The only real difference in crushers is, their rollers are smooth or are garnished with teeth. We never have yet seen smooth rollers draw in the bunches of grapes well. The only advantage they might offer is, that they do not crush the stems. This, however, is not important enough an item to pay back or balance its slowness of work. In our opinion there must be teeth to draw well, whatever be the size given to the rollers.

In our next number we will examine the most popular wine-presses, point out their good and bad points, and make such suggestions as to building presses as we trust may interest some, and hope prove useful to many. We will also thoroughly examine the modes of constructing wine-cellars, their necessary temperature, humidity and dryness; things which are of the utmost importance to the wine-producer.

[Editorial Correspondence.]

Santa Clara Valley.

TAKING the fast little steamer *Sophie McLane*, commanded by Capt. Thorne, of the California Steam Navigation Company, at Broadway Wharf, we are, after a three hours voyage, landed at Alviso, thence by stages of Wm. Hall & Co.'s line, to Santa Clara, San José, Santa Cruz, and Watsonville, The trip is quite charming at this season of the year, though the ride by stage somewhat tedious and fatiguing, being about seven miles. All along the road from Alviso are seen grain fields luxuriant with crops, and model farms, the buildings being situated back from the main road, having high arched gateways at the entrance to the long avenues, bearing in plain letters over their tops the euphoneous titles of the farms. The appearance of the residences from the street is somewhat imposing, being laid out in much taste and surrounded by beautiful shade trees, extensive orchards and gardens. The area of Santa Clara County is about 1,400 square miles, a large portion of which is valley land. On the east and west may be seen the ranges of mountains which are covered annually with crops of wild oats, clover, and other herbage, most nutritious food for stock and indigenous to the country, while they also produce an excellent hay for winter use.

Much attention has been paid in this county to the improvement of horses, cattle, etc., by the importations of fine stock. The soil about the valley is of the best kind and susceptible of the highest state of cultivation; the crops produced annually being abundant and remunerative. The chief resource of the valley is agriculture, which is obtaining rapid strides; the extreme fertility of the soil and salubrious climate being equal, if not superior, to any portion of the country. Santa Clara has improved much within the past two years; new building have been erected, fine orchards laid out, and the "Cameron House," a large commodious brick hotel built, the proprietor being well known in this place for the last ten years. By all means stop at Santa Clara a few days, for you will find the best accomodations and a good home table at the "Cameron," and will be well repaid by a roam among the beautiful gardens and fine orchards, and enjoy the delightful climate which the valley affords. Or, if you desire a ride to the Almaden quicksilver mines, or over the mountains to Santa Cruz, Capt. Ham, opposite the "Cameron," can fit you out in any shape—saddle, single or double teams—from the best which his commodious stable affords. Among the prominent attractions in Santa Clara, and an important one, are the extensive grounds and buildings of the Santa Clara College. New buildings have been erected and others are in progress, which will make this the most extensive institution of education in the State, if not in the Union. The college was founded in the year 1851, and is under the superintendence of the "Fathers of the Society of Jesus." We were received and shown over the establishment and grounds by the Rev. Father Accolti, Professor of Divinity, General Jurisprudence, etc., who has the general charge of the institution. Rev. B. Villiger is President, assisted by some twelve or fifteen professors for the several departments. The limited space of our columns we regret will not allow of so extended a notice of this college as we would wish, yet we hold it as an especial right to devote what room can be spared to so important a department as *education*. There are twelve acres enclosed in the college grounds; a beautiful garden filled with flowers, shrubs, with specimens of the palm tree, fig tree, and other native fruits. A large, fine vineyard, containing 1,500 vines *twenty years old*, from which was made last season about 1,000 gallons of wine. Bordering a portion of this vineyard is a row of splendid olive trees, thirty in number, from which also was made 200 bottles of sweet oil. There is also a younger vineyard of 2,000 vines, three years old.

The sanitary department, dining rooms, or refectory, kitchen, bathing rooms, etc., are in a long, one story *adobe* building, and are kept in the most orderly manner. This building is the same in which Andreas Pico had his horses quartered in 1849. It will soon be rebuilt and increased by an additional story. The infirmary is furnished complete with everything requisite for the sick, under the charge of an experienced infirmarian. The study halls, dormitories, recitation rooms, etc., are all well ventilated and roomy. In the large yard used for storing wood and other fuel, a large tank is erected, going by horse power, containing 20,000 gallons of water for the use of the college. It will be supplied by steam power. In the same yard is the brick bakery, blacksmith and carpenter shops, and beyond this the brick chapel for religious services. This yard is laid out and shaded by varieties of locust, maple, ash, and live oak. There is an extensive play ground, also a gymnasium with complete apparatus, and theatre 100 x 40 feet, with a stage and appurtenances, for elocutionary exercises. The photograpic gallery is separate from the main buildings and measures 13 x 33 feet, with two dark rooms and eight cameras of all sizes.

The chemical labratory contains over 500 varieties of pure chemicals, and assaying is carried on as a regular branch every day to satisfy the numerous applications of new mines. The cabinet of Natural Philosophy is the most extensive in the State, containing a complete philosophical apparatus and instruments for all experiments in electricity, galvanism, magnetism, mechanics, hydraulics, surveying, etc. The large

electric machine has a glass disc three feet five inches in diameter, and is capable of charging in a few minutes a large battery of eighteen leyden jars of one gallon each. This machine is said to be the largest in the United States. We observed some fine specimens of electrotyping made by the pupils, such as trays, medallions, etc., by the process as taught in the school. The mineral cabinet contains an endless variety of specimens, each properly classified for subject study; 3,000 specimens of shells, and numerous other curiosities are to be seen in this room, a description of which would occupy pages. The collections are partly European, and a splendid collection of California specimens. The cost of the cabinet and laboratory was $12,000. A mention of the new improvements must comprise the balance of this article. The newly furnished three story building of brick and frame is at the rear of the large yard. The tower is 106 feet high, with stairs to the top, and from this tower a magnificent view of the whole valley is obtained. From the tower you pass to the flat walk all over the roof, which is surrounded by massive balustrades, and surmounted by sixteen revolving ventilators. Water pipes run through the building on every story, and every part can be flooded by hose and pumps. The first story, of brick, will be occupied by the scientific department and the new chemical laboratory; next the assaying office, with a brick range, iron and glass furnaces and ovens, museum and cabinet of natural philosophy; next is the wash room for the students. The second and third stories embrace private study halls, dormitory and class rooms, an extensive drawing school, with a projecting gallery for landscape drawing from nature. Apart from the large library of the Faculty, the library room for the use of the students contains a choice of 650 volumes.

The University of the Pacific is also located in Santa Clara. Rev. Edward Bannister, D. D., President and Professor of Moral and Mental Science, assisted by four professors in the ancient and modern languages and sciences. The school numbers eighty-five at the present time and is in a flourishing condition. The Female Collegiate Institute is also a branch of this University. The board of instruction comprises Rev. Edward Bannister, President and Professor, and Mrs. E. G. Bannister, assisted by seven teachers in the various branches appertaining to the Institute. The building is pleasantly located, containing all the comforts and conveniences of a select female college. They also have the benefit of the university apparatus for chemistry and natural philosophy. About fifty scholars are under tuition in the several branches of this institute.

Among the fine gardens and vineyards about Santa Clara we may mention those of Wm. M. Lent, Esq., L. S. Gould, Jos. Lendall, Jno. Dibbel, Jas. Lowry and Dr. Warbleton. A visit to these places well repays the trouble, and shows the increase in horticulture and floriculture in this valley.

Leaving Santa Clara, with its balmy and invigorating atmosphere, take the stage for San José. The road winds a distance of three miles through an avenue lined on both sides with ancient looking willows, which were planted in 1799 by the Mission Fathers, as a shelter for people coming to church at Santa Clara. They are from ten to fifteen feet apart, and their venerable appearance is quite imposing. Some of the trees have become decayed and fallen down, but still the gnarled limbs of the others almost fill up the space. Lately a fine Macadamized road has been built, under the superintendence of Col. Wm. Hall, from the edge of Santa Clara to the bridge near San José, and cost over $28,000; it is about 60 feet wide, and one of the most beautiful drives in the valley, being a distance of 3 miles, the huge branches of the willows forming an agreeable canopy over the head, as the stages dash along the magnificent avenue. Land has risen much in value on the line of this road, which is lined by beautiful residences, gardens and orchards, among which are those of Judge Hester, John Cook, Mr. Thompson, Judge Moore, etc. The grounds and race course of the Agricultural Society are located on the road, about a mile from San José. Here may be seen "Langford," the hero of the California turf, owned by Col. Lathrop; a two-year-old colt "Fireman," by Langford. a two-year-old colt "Cuatralbo," by "Jack Hawkins," out of a dam by "Kate Mitchell." Also several brood mares, "Seed Wheat," dam of "Fireman;" "Juliet," dam of "Cuatralbo." The race course is leased by R. T. O'Hanlon, who has had the grounds put in excellent order. The track is a full mile. O'Hanlon is the proprietor of the "Senate House," San José, now the head quarters of the stock and turf gentry.

Opposite the Race Course "Ashland," owned by N. Coombs of Napa, is making his season. He is by Imported "Glencoe" and half brother to the renowned mare "Lady Palmer." "Ashland" is a thorough bred; color, blood bay, and bred in Kentucky in 1854. Near by is the garden and vineyard of Messrs. Bradly, proprietors of the Burton Ale Saloon, San José. The place comprises about eight acres, on which are 1,200 fruit trees—apple and pear—in fine condition, showing vigorous growth. There are about 9,000 vines—Mission and Foreign—three years old, but mostly trained on espaliers and arbors. The main arbor is 400 feet long, and another in process of construction will be 1,000 feet long. In the centre is a large dome, or cupola, made of lattice work, the whole forming quite a picturesque appearance. For size, and general neatness of appearance, is one of the finest orchards and gardens in in the neighborhood.

At the "Messenger Rancho," Alameda road, Wm. Kohl, proprietor, the following horses are making their season: "Joseph," thoroughbred bay stallion, five years old, foaled in New Jersey; he is by "Hermes," by "Mariner," out of "Fashion," etc., and combines in his pedigree the best strains of blood; "Messenger," whose pedigree is too well known to need comment. He is making his fifth season. We noticed in the field a lot of handsome colts sired by Messenger and Joseph, which certainly bear evidence of the excellent qualities of their sires.

At Putney's stables are standing, "Mike Champion," thoroughbred chestnut stallion, eight years old, owned by Wm. B. Hawkins. He is of Printer and Bertrand stock, and came across the plains in 1851. "Ben Franklin," bay stallion, five years old, sired by "Lawyer," out of a Leviathan mare. He stands sixteen and one-half hands high and weighs 1175 pounds; is owned by S. R. Dickey, of Petaluma. "Oregon Selim" and "John Bull" are also at the above stable; the latter is a dapple chestnut horse, sired by "Young England's Glory." He was awarded the first premium two successive seasons at the Sonoma County Agricultural Society, and by State Agricultural Society in '61 and '62. He is owned by Geo. W. Oman, of Petaluma. Putney's Livery and Sales Stable, located on First Street, San José, is quite an exten-

sive establishment, having more blood stock standing there this season than at any other place.

The prospect of an early completion of the San José and San Francisco railroad has given an impetus to all commercial matters, as well as real estate, it being the centre of a country rich in agricultural wealth and resources. The population has increased some 600 to 800 inhabitants the past two years. In this valley much attention has also been paid to the cultivation of fruit trees and the grape vine, and with marked success, and those grown without frequent irrigation have done the best, as it has been proved that too much irrigation here impairs the flavor of the fruit. The temperature and climate, as well as the soil, are especially adapted to the cultivation of the vine and wine making. The foreign grape has been more favored in point of cultivation, seeming to possess, in many respects, advantages over the California grape for wine making, and has produced wine of excellent quality, especially desert wines, while the vines bear abundantly. There are nearly 100 artisian wells in the city, which furnish an abundant supply of water, and between one and two hundred around the city within a space of eight or ten miles. The water is discharged from them in columns of 25 feet in height, supplying near 4,000 gallons per minute. They are from 60 to 300 feet deep.

The whole valley of San José seems one great garden in the departments of horticulture, floriculture and pomology, while the remarkable soil and salubrious climate, unsurpassed by any portion of the State, prove that nature has indeed been lavish of her bounties in this section. In and around the city are beautiful gardens and vineyards, like modern Edens, rich in all their floricultural grandeur, with almost every variety of flowers and shrubs that the world can produce, those of the colder, as well as of the tropical climate growing side by side in perfect harmony, and unaffected by any change of climate. Well may it be said that here "Flora and Pomona reign supreme."

About a mile South of San José is the vineyard of J. E. Brown, Esq., who has planted about 9,000 vines of the mission variety, from four to five years old. The vineyard is located on the "Ridge," which, for locality and soil, is admirably adapted for the grape, as the thrifty appearance of the vines testifies, just settling with fruit and loaded with large clusters. I noticed, also, some fine specimens of Catawaba, Black Hamburg and Isabella. The vines are planted 1,000 to the acre. Mr. Brown made an excellent white wine, last season, from his vineyard, which we tasted, and it only lacks age to give it a place among our best California wines. The orchard, vineyard and homestead comprise about 18 acres Mr. Brown is an old resident of the valley, and his place is laid out with regard both to business purposes and the comforts of a home. Adjoining is the vineyard of Dr. B. Corey, containing 33,000 vines, which are mainly of the Mission variety. The vineyard and orchard contain about 58 acres, which is located on the "Ridge," and enjoys the warm rays of the sun. The soil is a gravely loam, and the vines are in a most thriving condition. There are, also, about 1,500 foreign vines—comprising 1,000 Burgundy, balance Catawaba and Charboneaux. The vineyard is about four years old, and one of the largest in this section of the county.

Nearly opposite is "*Hard Scrabble Place*"—so called—owned by Wm. Buck, Esq., situated at the head of Guadalupe Creek. The orchard is well laid out, and is free from weeds, containing nearly 500 trees in bearing condition, principally pears, from which large crops were obtained last season. In the vineyard are 9,000 vines, the bulk of which are Mission. Foreign vines include 1,000 Miller's Burgundy, much esteemed, and Early Madelain; 1,800 Catawba, also Black Hamburg and fifteen other varieties. The vines are two years old. The place embraces sixty acres to vineyard, orchard and crops, with homestead, large barns for stock, and other buildings. Mr. Buck is an old resident, and formerly largely engaged in the bee business, from which he realized largely and gracefully retired in season to lay up a sufficient store for the future and to beautify and improve his farm and homestead.

GARDEN AND NURSERY OF WM. O'DONNELL.

This garden of rare plants and trees is located about a mile from town, and occupies about twelve acres. On entering the garden the visitor is at once surprised at the magnificent collection of roses which meet the eye, while the air is redolent with the perfume. It is the month of May and the garden is in its prime, showing the wonderful and prolific growth of flowers and shrubs natural to the climate of California. Just facing, as you enter, are arches of cœnothus, the most beautiful of our indigenous plants, in full bloom, also trained in various devices and forms, pyramids, and hedges, around the garden, while on every side, up and down the avenues, are myriads of roses, some in clusters on immense bushes, others twining around arbors and trees, comprising hundreds of varieties and colors. The cromatella, or cloth of gold, with its magnificent buds and flowers; the white lamarque, its graceful branches winding around some artificial trellis or among the branches of trees, covered with hundreds of flowers; then the giant de battelle, its rich hues forming a beautiful contrast; tea roses and hundreds of other varieties in profusion, making a sight grand to look upon. The garden is very tastefully laid out in various designs, oval forms, circles and semi circles, bordered by neat hedges and enclosing, beside roses, a large and choice collection of delicious flowering shrubs and trees. The mansion is substantial and comfortable, situated in the rear of the garden, its front embowered with climbing roses and honeysuckles. The flowering shrubs embrace nearly every variety of foreign and and native origin, fully acclimated, showing the wonderful virtues of the soil and climate. Here may be seen the Pride of China, Australian Accacia, English Ash, Sugar Maple, Catalpa,, Red Wood, Cypress, Black and Yellow Locusts, Mountain Ash, Magnolia Grandiflora, and English Broom, with its yellow flagrant blossoms; Oleanders, Virginia Cypress, Siberian Arbor Vitæ, Irish Yew, Pyrus Japonica, Pottisporum, and English Laurel, with its rich green foliage; while near by may be seen Laurestinus, Veronicas, Dutzia Scabra, Australian Heather, Herberdendus, New Holland Accacia, with its evergreen foliage and perfectly hardy; also other varieties and colors in beautiful display. Double Flowing Pomegranate, with its rich scarlet flowers; Laburnums, Olive trees, Pepper trees, Alipica Pine, Weeping Junipers, Euoniums, Thyme, Pelonium Imperialis, with its delicate blue flowers. Also a variety of Australian plants and trees, the whole forming as rare and beautiful a collection as any garden can boast af in the United States, all growing in

the open air—those of the tropical and those of the colder climes—a sight for some of our Eastern horticulturists, when it is known that the whole garden has sprung into existence in 6 or 7 years from almost a barren waste. The orchard cotains a large variety of fruit trees and a vineyard of foreign and Mission grapes. The latter, however, I am told, does not ripen early enough in this section.

Louis Prevost (formerly Prevost's Nursery and Garden) has divided his property into building lots, laid out in blocks and streets, on some of which buildings are already being erected. The estate is only half a mile from town, across the bridge over the Guadalupe Creek. The intention is to reserve a sufficient portion for the garden and nursery, and the balance will be sold in lots as laid out. The streets running through it are sixty feet wide, lined with Lombardy Poplars, which will make an agreeable shade. A fine lake will be in the centre of the grounds. There are two Artesian wells, supplying abundant water for the whole place. It will, when laid out, become one of the most pleasant places in the valley for country residences and houses. The vineyard embraces 2,000 vines of foreign grapes in bearing condition, for fruit, and wine making. The culture of the silk-worm is a prominent feature of this place, and the experiments in its culture have been attended with perfect success, to which an allusion will be made in a future number.

A. Delmas has also laid out his once fine garden and vineyard to the same purpose, and it is cut up into building lots for summer residences, making a very attractive spot. The streets pass through the entire grounds. He has still a vineyard of 3,000 vines, mostly foreign varieties.

Mr. James Morrison has a vineyard of from 800 to 1,000 vines, native and foreign varieties. The orchard and vineyard are both in a thrifty condition. I noticed some varieties of the Cherokee plum, which is considered good eating and is also a great bearer. Mr. M. has in the field a two year old colt, "General Washington," light sorrel, fifteen hands high, sired by "Owen Dale," from a Bertrand mare. He is of clean limb and is well proportioned. Took the first premium at Oakland, in 1862, in class of thoroughbreds, and first premium at the District Fair as the best Owen Dale colt in the valley. I noticed, also, a yearling colt by Owen Dale, full brother to General Washington; also brood mare "Lady Jane," light bay, twelve years old.

Mr. R. C. Beatie has a fine place about half-a-mile from town. The vineyard contains about 800 Mission vines, ten years old. In the orchard are 1000 fruit trees—apple, pear, and apricots—loaden with fruit. Mr. Beatie is the owner of "Beauregard." I observed a one-year old sorrel colt, "Richmond," by "Belmont," out of a dam of "Dashaway's." It is hardly necessary to say that in stock and turf matters Mr. Beatie is taking a deep interest.

Nor must we forget Isaac Branham, whom we had the pleasure of meeting only a moment or so in San Jose. He owns "Ben Lippincott," a four-year old running horse, by "Belmont," out of "Puss," by "Lance;" also "Fanny," a bay mare, and a brood mare "Lady Bell." Not seeing the stock we cannot speak further at this time.

There are a number of extensive gardens and nurseries about San Jose, a full mention of which we must reserve for another time for want of space. We refer to the "City Garden" of Mons. Pellier, the "Union Garden" of J. B. Bontemps; both of these have large and splendid vineyards mostly foreign wines. They are also engaged in the manufacture of wines and brandies. We tasted at Mons. Bontemps samples of red wine, sweet currant wine, and plum brandy, of the vintage of 1862. There are other and extensive nurseries located at the other portion of the town. On the Mission road H. H. Winchell has twenty-five acres to orchard, and 3500 bearing trees, and is now laying out the grounds for an extensive nursery business.

B. S. Fox has the largest nursery in the county, comprising two miles in extent; sixty acres to the orchard, and 40,000 trees in the nursery, besides another nursery of twenty acres across the street. The horticultural department comprises all the various trees, shrubs, and plants, to be found in a nursery of the kind. Mr. Fox is an old pioneer in the business, and still receives the usual packages of seeds and plants from the Patent Office, which he distributes liberally.

Jas. Aram has 2,000 foreign vines in bearing; Black Hamburg, Black Cluster, Burgundy, Catawba, etc., and thirty acres to orchard and vineyard. He is also raising horses and cattle with a view to improvement, by crossing with the best thorough-bred stock.

The old Mansion House is now under the charge of R. J. Downs. It has been re-fitted and improved since his taking charge, and the most central and comfortable stopping place in all respects in the place. We really need a first class hotel in San Jose, which would render it more of a resort for families during the summer months. An enlargement of the Mansion House would be a paying investment.

We made a pleasant call upon Messrs. Cottle & Owen, Editors of the San Jose *Mercury*, which we are pleased to see is enjoying a most liberal circulation through the county.

The late rain has somewhat injured the hay, but improved the grain crops which were suffering much from the past dry weather. But in every section of the place the fruit trees were doing finely, and the yield is expected to be very great.

In our next we will continue our trip towards the extensive dairy establishments in and around Gilroy, thence to the wool districts and noted sheep ranches in San Juan and Natividad, Monterey county; with notes about Watsonville, the Pajaro Valley, and the manufacturing establishments about Santa Cruz.

THE WINE DEPARTMENT.—With pleasure we announce to our readers that this portion of the journal will for the future be under the Editorial control of Arpad Haraszthy, Esq., a gentleman every way fitted to the task, from years of practical experience. Mr. Haraszthy spent six years in Europe, during which time he visited every renowned vineyard and large vine-growing district in France, Germany, Spain, and North Italy, all of which are as familiar to him as those of Sonoma Valley. Three years of the time was spent wholly in learning practically the management of wines, handling the bucket, faucet and syphon, in the most distinguished establishments of France, learning all that was possible in these branches. The first of the series of articles we give to our readers in the present number, to be followed by others, on cultivation of foreign and domestic vines, manufacture and care of wines, etc., and embracing notices of all new machinery and works, French, German and English, on that branch. For the endeavor to establish a first class journal and to give our readers the best information procurable in the several departments of the paper, we certainly hope we shall receive an increasing patronage from the Wine and Stock growers of California.

CALIFORNIA
Wine, Wool, and Stock Journal.

"Festina Lente,"---Hasten Slowly.

SAN FRANCISCO, JUNE, 1863.

To Advertisers.—The Wine, Wool and Stock Journal now has a liberal circulation through the State among wine-growers, wool and stock raisers, dairymen, and agriculturists generally. Nurserymen, stock-raisers, inventors of new machines, will find our columns the place to make known their business; and now is the time to advertise.

Alpine Cattle.

Have we the *best* stock California can afford to keep, produce or import? This is an important question, not merely for farmers and dealers, but for every man, woman and child within its borders. So much is involved in this question that if mothers but knew how much of the vitality of their own offsprings is bound up in it, they would give their better halves no peace until it had found its satisfactory solution—for, be it known to them, that in exact proportion to the quality of the milk cattle in a country stand the chances of raising children, when deprived, by whatever cause, of *the* milk intended for human sucklings.

In the Agricultural Exhibitions now soon to take place in Hamburg (Germany), the paramount object has avowedly been to bring together the most select specimens of horses and domestic cattle that could be got at, and competition and participation have been invited from all parts of the globe. Is our State to be represented there? Is any one commissioned for her especial benefit, to watch these splendid chances of study and observation? Or have we no more to learn anything or improve upon what we have got in that shape? Some may fear, not without reason, that in the present feverish thirst to discover new lodes of metal and to work those already discovered, too little attention is bestowed upon the *true* and *lasting* riches of a country: we mean the articles of food, fuel, raiment and dwellings, in fact, everything that comes within the line of daily *consumption.* Neglect on this head works out its own punishment in due time. More, perhaps, anon on this subject abstractly considered.

To-day we would dwell particularly on the desirability of permanent arrangments being made by which the best breeding stock could be imported from Europe by our farmers, or others interested therein. Now, one of the best species of milk cattle is the *Allgaeuer*, a breed figuring conspicuously in the Catalogue of Prizes and Premiums that are to be awarded at the Hamburg Exhibition, above spoken of. The *Algaeuer bull* has usually a glossy black coat, often really embellished by a white streak all along the back, and white specks on nose and legs. Of medium size, he is especially prized for his staunch, and still nimble, build and fine proportions.

The cows give so much milk (from four to five gallons a day,) that the Swiss are regularly in the market to take them over from the northern incline of the Alps, in Tyrol, Wurtemberg and Bavaria, to their rich pasturages in Switzerland, where, on the higher Alps, within the Canton of Bern and adjoining Cantons, that cheese is made which has acquired, in comparison with all other sorts of cheese made the world over, probably the greatest renown from merit alone, and is imitated at the very model dairies, not merely throughout Southern Germany, but also in Sweden, Denmark, and in some of the States of America. Can such cheese be made here? Can cattle of this and other Alpine breeds be brought here? How will *our* pasturages agree with them? More such questions might yet be put, but trial, actual trial alone, will answer them satisfactorily, and those intent upon a trial can have from us some more detailed information, which may encourage them to make it.

To Hamburg, as the port of embarkation, there is a continuous stretch of rail right to the foot of the Alps, and an express train runs over the whole distance, right through the heart of Germany, in not more than forty hours. The cattle could, therefore, be brought easily and in good condition to the seaboard. If not shipped in the direct steamers to New York from Bremen or Hamburg, a transshipment could be effected at Southampton into the steamers of the Royal West India Mail Steamship Company, which communicate with Aspinwall, which, for the sake of saving time, more careful handling and also expense, might prove the best route for cloven-footed passengers. A trip around Cape Horn by direct vessels seems hardly recommendable when the increased danger from disease on the way is borne in mind. By and bye we shall let our readers know, we trust, what *we* have learned of the Hamburg show through our own resources, and doubtless some among them may find our remarks in place and deserving of thought and digestion.

Two Spanish Merino Rams from Saxony, Germany, can be seen at Stoltz' stable, Pine street, where they are for sale. They were imported by H. Hanssmann, Esq.

To Our Readers and Subscribers.

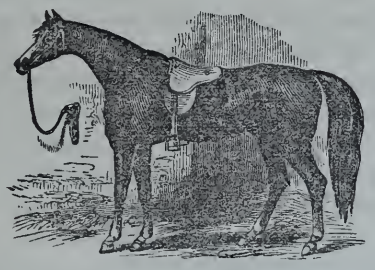
The present number forms the sixth of the Wine, Wool and Stock Journal, and completes our part of the arrangement with such of our subscribers as only favored us with a semi-annual subscription. To those few who have only recently sent in their names, who from their locality found it inconvenient to transmit the amount of their subscription, we respectfully request that they will take the earliest convenient opportunity of doing so.

To such as have been on our list from the commencement, and who feel satisfied with our production, will we hope also take an early opportunity of remitting us the balance of their annual subscription.

To new subscribers, we may intimate that by remitting a three dollar gold piece, by post, they can have the journal delivered for the whole year, with back numbers complete, to such as desire it.

It is gratifying to be able to state that our first half year's efforts have so far given satisfaction, that we have not received a single discouraging communication, either orally or verbally, though we should have had abundant opportunity for ascertaining such by the latter described mode, had it existed, whilst engaged in a canvass through four of the most populous districts in the State.

In order to continue amusement with instruction, we propose in our next number to devote a column or two to sporting matters connected with the course. As a large number of our subscribers situated in remote districts, have advised us to do so, we feel it is a legitimate craving, and one calculated to promote the rearing of a high class of horses, for which our State possesses such wonderful advantages, and we have willingly acceded to a desire so generally expressed.



On Breeding and Rearing Horses in California, No. 4.

Let us then discuss the thoroughbred stallion, versus the trotting stallion, whether called "Morgan," "Black Hawk," "Roadster," or any of the thousand and one titles by which these horses are customarily designated, whose essential vocation is believed to be the getting of fast and good harness horses: and whether it will most tend to the general improvement of our breed of horses, to use the thoroughbred stallion, or one of these roadster or trotter stallions for breeding with the average of our common tolerably well-bred, useful harness mares.

At starting I will frankly declare my own opinion, because what I have to say will show the reasons for it as I go on. It is that to improve from *this class of mares*, and breed the best horses that can be bred from them, I should myself have recourse to a thoroughbred stallion in preference to any coarser or commoner kind; and if I could not get him quite pure, then the nearer to pure thoroughbred the better; but always bearing in mind the peculiarities of the mares when selecting the stallion; and I think from such an union would spring a handsome, good-sized, spirited, fast and enduring animal, fit for all the general uses of gentlemen, either in harness or under saddle; and I also think and firmly believe, that as many or more of them would turn out fast trotting phenomena as would do so were they got by the veriest Canadian, Kenuck, Morgan or Black Hawk in America, whilst the whole lot would be far superior to any lot of the same number got by any such class of horse.

My conviction is that the trotting horse of America *is not* of any particular breed, but results more from the accidental presence of "the right man in the right place," to take hold of the horse and develope the pace which can be got out of really good horses *of any breed* possessing the conformation necessary to go fast and properly taught to trot.

I think that the better the horse, the better the trotter, and that to go fast in any pace, and to last at it, entails a necessity for a very near approach to the form and innate quality of endurance, which is the attribute of the thoroughbred horse; and that it will be found, if it be ever tried, that horses bred as I have described, out of average well-bred American mares by thoroughbred horses, and *properly handled and trained to trot*, will just as far exceed the produce of the same mares got by Canadian ponies or Morgan trotters, in pace and endurance while trotting, as they do in galloping, and in just the same proportion that they exceed these horses in the quantity of "blood" (thoroughbred) that thy have in them.

I know my views will be hooted at and flatly contradicted by the majority of the trotting turf-men, and for the very sufficient reason that these gentlemen are nine-tenths of them interested in and connected with the interests of owners of stud horses

passing by the name of "Morgan," "Black Hawk," Canadian, and so-forth, but all professing to produce fast trotters and good roadsters, and that so long as these stallions can be made and kept in fashionable repute, so long will it be profitable to breed from them without reference to the matter of final deterioration in the breed of American horses.

I will now proceed to give some of the reasons why I arrive at the opinion that the thorough-bred sire is the one by whose means fast roadsters, and in fact the best general horses for all purposes where speed and maintaining speed for a distance is sought, will be bred from average roadster mares; to do this I must quote some of the various arguments commonly used in favor of the cross bred common horses as stallions, and in depreciating the thorough-bred.

The first thing they generally say is, that the thorough-bred *cannot* trot, that naturally he inclines to gallop, and is too fiery and excitable to contend at a lower pace than his best, and will therefore continually break, and that all crosses of him partake so much of his disposition and form, that somehow it spoils the trotting propensity and the trotting action; and further, that the breed is too slight and fine boned to bear road work; and therefore, say they, "to breed a trotter, or genuine roadster, you must take a stallion of cold blood, a Canadian pony, a descendant of Justin Morgan, or Black Hawk, *they* have the legs of iron to stand the work, and will grow fat on abuse and hardship which would kill your thorough-bred or half bred horse." In reply to these arguments I urge, that thorough-bred, half-bred, or known high bred horses have seldom or never been tried *to make trotters of them.* In England, the land of the thorough-bred, the people know little and care less for fast trotting; the roads are too hard for practicing the amusement as a general thing, and fast trotting on them would pound up the feet, and ruin the legs of the best trotter in Canada or Vermont. In England they have other uses for well bred horses, and have never much tried to bring out any such pace in them; and I rather think that American owners of thorough-bred horses have not tried them much in harness either; and where as has occurred in many instances, horses of unknown pedigree, as we will say Flora Temple, or California Princess, and others, have become trotting celebrities, it has been impossible to trace them or tell their blood with certainty; they are immediately laid claim to as "Morgan," *because* they are good trotters. Now I take the converse of this proposition, and think they are good and fast horses, because they are *not* Morgan, but have a large proportion of the race horse or thorough-bred blood.

Again, one thing which cannot fail to strike any impartial critic on this matter, is, that while the advocates of the cold blood trotting stallions, *now* utterly repudiate the thorough-bred stallion, as a sire, calling the breed many hard names, yet in the same breath they will tell you, and seem very anxious to prove, that the Justin Morgan horse himself, the supposed founder of the family, *was got by a thorough-bred stallion, stolen from an English officer during the war.* If the cross was good *then*, why is it bad *now?* and if this Canadian pony (as his pictures delineate him) got by a thorough-bred, was such a trump, why not try by similar crossing to get "more of the same sort." I never heard of any objection made to put one of these stallions to a thorough-bred *mare*, if one could be had for him to cover, not a word about spindle-shanks, or curby-hocks then. Now in the matter of the legs being small boned, and unable to stand road work in the pure thorough-bred, I certainly do not deny that they will not compare in that respect with the legs of a Canadian pony, a pony of any breed, or a mule, for various reasons *in nature*, but one very prominent one of artificial origin I will mention; the breed of race horses for many generations back have been undergoing *when too young*, the severest work in training and preparation which horse flesh is liable to, in many instances the unconsolidated legs of two and three year olds will not stand this work, and give way in various ways, throwing out splints, sprains, curbs; in fact, showing any weak point which possibly might never be developed were the animal allowed to attain its mature growth, unforced by stimulating food, untired by premature exertion. Well, probably these incidental ailments are gotten over for the time, and the colt wins some prominent race which establishes his reputation, and sets him up as a stud horse, to which use he goes with all his imperfections, and whatever may be said to the contrary, there is abundant evidence that any tendency to disease descends, consequently the progeny may inherit the same liability under similar circumstances to develop like weaknesses, and so on *ad infinitum*, and thence we find many of our thorough-bred stallions with defective legs, and unable as their opponents say, to stand knocking about and hammering on the roads like Canadian ponies; but allowing this fact let us examine the thing a little further. The original Eastern horses of which our

modern thorough-bred is the cultivated product, were, and are to this day, remarkable for the most iron stout legs, clean, wiry, and flat boned, that can be found in any breed; but they too were a small breed, and were permitted to attain their growth and consolidation of bone, and were not expected to exhibit the size, and to do the work at three years old, which ought only to be looked for from a full grown horse; I argue therefore, that these faults which can be found with the thorough-bred, are only *artificial* ones, caused by mans *stu*pidity and *cu*pidity combined, inasmuch as good horses are spoiled for the sake of too early maturity that they may begin to make *money* for their masters, instead of making *bone* and substance for themselves; and therefore the evil having been created artificially the remedy is plain, and consists in a return to the natural treatment, by permitting the animal to obtain his full growth in the natural way, without being trained or forced by stimulating food, he must be brought up as *Canadian ponies and common horses* are, "untouched by spur or rein," and but little if at all worked until fully matured by nature's hand. On the other hand try these Canadian ponies, and these Morgan trotters, train them, trot them, gallop them, at *two years old*, to the utmost extent of their powers, and my word for it, there will be very few of them seen at five years old with a leg to stand on, or in any more elevated position in life than hawking vegetables, or carting sand. When thorough-breds are treated in the way every breed of horses *ought* to be, but seldom *are*, they develope a size, substance, solidity and strength of bone, containing greater weight and more power in an equal compass of matter, *than any other breed of horses.*

It may be said that this is only assertion on my part; I do assert it, but I beg to assure my readers that *it is a proved fact*, of which various instances are on record, and the experiment can be verified by any one who chooses to try it, by comparing any particular bone of a thorough-bred with the same bone of a draught-horse, when it can be seen that the thorough-bred bone is condensed, close in texture, the marrow contained in a small hole, and the entire bone itself much heavier, in proportion to size, than the bone of the draught-horse, which will be found light, porous, soft and gristly, in comparison.

But furthermore, in this same connection I have another word to say, namely, that the average of thorough-breds themselves, have better, more healthy, wearing legs than those trotters of the Morgan, Black Hawk and general strains supposed to have in them a strong dash of the Norman Canadian, plenty of whom are used up by *trotting* just as fast as the thorough-breds are by *galloping*, and every body knows that the latter pace produces the greatest strain which can be put on a horse. I say that if the thorough-breds cannot stand the road hammering, neither can the Morgans, except in their original form of the Norman, Canadian, Highland, or in fact *any* breed of chunky, *pony horses.*

Now let us take up the subject of "endurance" to which word in reference to the horse, there may be several interpretations. I have been told by a friend here, who is a good judge of horses, and a great advocate moreover of the Norman-Canadian, and the Black Hawk strain for general use, and who has had considerable experience "out west," staging, that he has used many of the thoroughbreds bought cheap at the breeders auction sales in Kentucky, putting them in the stages, and (to use as near as I can his own language) "so long as you keep them on a good turnpike road, with a moderate load to pull, and feed 'em well, they spin along fast, and do their work nicely, but Lord bless you, they aint no whar if you come to bad roads, heavy loads, bad weather and bad care; then" says he, "give me a team of Canadians, they'll pull a stage coach through or out of anything, no matter what happens, you can't hurt *them*, they are never off their feed, and they gain condition where the thorough-breds would die;" and I quite believe this gentleman states the exact truth, from his experience. I do not think such work is the business of the pure thorough-bred, and besides, in all likelihood the thorough-breds he tried in it were the very worst of their kind, the weeds of the breeders, rejected by them as unfit either to race well, or to be used for the stud, and fit only for very light buggy or saddle use, for which we all know there is but a limited demand in the United States; further, a steady, draught-horse pull, such as would be required in the above mentioned circumstances, is not the characteristic of the thoroughbred, his pull is a snatch, sudden, repeated, but not the continued, slow, determined strain of the genuine horse for heavy draught, and to "endure," and last under such work and such usage, no doubt the Canadian will bear the palm.

But try them in a different style, put a fair weight on the back of them both, and start them both to gallop at their top speed, and then see which will soonest stop, and my word for it, the thorough-bred will be found able to go as much *further*, as he can

faster than the Canadian, and will be ready and able to repeat the same performance much sooner and oftener than his rival; and these qualities of speed, and enduring speed aud activity, to say nothing of beauty, are what the thorough-bred sire will give when crossed upon good useful mares of these strains known as Morgans, Black Hawks, and general harness horses under whatever name they come to us, and will assuredly produce a far finer, and a more generally useful and handsome animal in every way, than if such mares are bred to horses of the same class as themselves.

It is by such a mode of breeding, making half, three-quarters, and seven-eighth thorough-bred horses, that the best horses in England are bred, far superior for use and general work to the thorough-bred race-horse that gets them, but without whose service weedy and small boned though he may appear, *such horses cannot be made.* Americans cannot understand, without seeing what these horses are, nor the work they do, and if they did see it would stare with as much astonishment as an English stage coachman of twenty-five years ago would, if introduced to a team of Canadian ponies, and a corduroy road in the western country. But I tell them emphatically that they could there see half, three-quarters, and thorough-bred horses as powerful, as big, and as stout-looking as dray horses here, and that these horses will carry men of two hundred, and two hundred and fifty pounds across auy country, and over any fences, at a pace that no Black Hawk or Morgan in America could go for five minutes; and if these same horses were in America, trained and handled by Americans for trotting and road purposes, they would just as far excel the present roadster of America, *on the road*, as they would in the hunting fields of England. It is the knowledge of these horses, and of what they can do, and what they can endure, exerting every muscle and every power of vitality to the utmost, that makes me so strenuously advocate the use of the thorough-bred race-horse, as the general sire to cross with the average class of American mares which I see in California. Let me not be misunderstood; I do not say that the race horse is *himself* the most *useful* general horse for work of all kinds, *but that the horses got by him*, out of the proper kind of mares, will be the best horses for all purposes of moderate draught, saddle, or harness use, where activity, speed, and long continued exertion are requisite. I do not know if what I have advanced in corroboration of my views will at present pass current; doubtless it will not do so, *with the owners of a certain class of stallions*, and their name is legion; but I am content to bide the verdict which will come when time tells the tale, and the produce of the two kinds can be fairly compared for all useful characteristics, meanwhile I try to elucidate what I believe to be the truth, as tested by the experience of older horse breeders than any who will read these remarks in California.

I trust I have made it clear to my readers for what purpose I would recommend the use of the thorough-bred or race horse sire, and that his excellence is in the increase of speed, general activity and endurance, besides "trueness" of form, beauty and style of appearance, produced in the crosses by him out of the common run of useful mares, rather than in the production of race horses, for which the demand will always be limited here. The racing power is only *the test* of excellence in the thorough-bred, and has been used in England for the purpose of proving which were the best horses amongst the numerous stallions and mares to propagate the breed, and by this test they have arrived to be the first horse breeding nation in the world, and to supply breeding animals *to* all the world. Successful racing is considered the test in breeding for racing purposes, but in breeding hunters or general purpose horses, other things besides performance on the turf may enter into the calculation, as a horse himself too slow to race and therefore not so likely to command the *highest* price in the stud, may nevertheless be a very useful horse for a general stallion, and may occasionally if put to pure thorough-bred mares, throw a good race horse (and to this chance breeders are always looking) but there is one thing they want to be sure of, because they know that without it they cannot calculate with any certainty how the horse will breed, or feel that they have any chance of getting a race horse, and that is, that the stallion is really and truly thorough-bred, as I have defined the meaning of that word at commencing this heading. Now in England they have a very simple mode of proving this, and beyond this there can be no difficulty or appeal; if the animal does not appear registered in the annually issued stud book, no one will believe it to be thoroughbred, all sorts of certificates, oaths and pedigrees to the contrary notwithstanding. If the name be there, it may be accepted as proof of thorough-bred; the only other matter to ascertain being that you have the animal referred to in the stud book, which can generally be proved without difficulty.

But here in California, and indeed all over the

United States, we are in a different position; there is now no regularly authenticated register kept, and the greatest uncertainty must prevail about pedigrees under such circumstances; animals are brought from one state to another hundreds of miles apart, they are in many instances bred, and owned by people whose literary acquirements are not great, and who attach little importance to the proper registration of such facts as are all important to those desirous of undoubted purity of blood. The consequence is that the whole country is overrun with spurious and incorrect pedigrees, many of them the result of intended rascality, others of unintentional mistakes, but all having the effect of rendering breeders most suspicious regarding horses offering for stud purposes; and until proper steps are taken by those interested, to secure the regular registration by competent authority in an authentic stud book, I can see no remedy for this evil. Meanwhile breeders have nothing to trust to beyond the character for truthfulness, and the ability and knowledge to guard against their being themselves deceived of those offering stud horses for service. Finally, in taking leave of the thorough-bred, I will recapitulate wherein I think the use of him as a sire ought to be adopted.

First, with thorough-bred mares of undoubted pedigree in order to keep up the stock of thorough-bred horses for breeding purposes; these should be tested on the race course, and if deficient in speed and bottom should not be used as breeders; the best only, both in appearance and proved quality should be kept for that purpose; the inferior ones will answer well for selling at fair prices to go south and improve the mustangs of the large ranches.

Second, with large framed but neat and oblique shouldered mares such as we find in express wagons in the cities; with these the thorough-bred will breed a most useful, active, and handsome style of horse for carriage or saddle.

Third, with the general good sized harness mares which are commonly called "Morgan" or "Black Hawk" roadsters; he will improve them much, fining down the head, giving them beauty, spirit and endurance.

Fourth, with good specimens of the native California or mustang mares, and from them will come an excellent type of saddle horse, and many of them very speedy; but in all cases as I have before said, and again emphasize for an universal rule, the different peculiarities of the individual animals used must be studied, their fitness and adaptability to each other, and nature must not be outraged by unions which are evidently ill-assorted.

[From the American Stock Journal.]

A New Method of Castrating Colts.

By R. Jennings, Veterinary Surgeon, Professor of Pathology and Surgery in the Veterinary College of Philadelphia.

This time honored operation, barbarous as it may appear, is performed with a view of bringing the animal more under the control of man, and better fitting him for our domestic purposes. Various methods of performing the operation have from time to time been introduced, in order to overcome some objection in those which preceded them. It is not my intention to enter into a minute account of these several methods, but rather advert to them only in comparison with the new and improved method. The mode of operating which experience teaches us is the least painful; the least inconvenient to the animal, or to the owner, is the operation which interest and humanity prompts us to adopt. The old methods of clamping, searing, and by ligature, are objectionable, compared with the new. By clamping we cause a crushing pressure upon the spermatic cord, which pressure is kept up for twenty-four hours; the clamps generally used are grooved in the center, these spaces are usually filled up with flour and corrosive sublimate, or some other caustic substance, which destroys the vitality of the parts with which it comes in contact, besides causing great irritation to the surrounding tissues; the clamps themselves—composed of hard wood—remaining so long in contact with the open scrotum, bruises the parts, causing an increased temperature of the parts, together with swelling and pain; all that portion enclosed between them is destroyed, rendering it in consequence a foreign body, to get rid of which nature sets up an ulcerative process, by which means it sloughs or rots away; during this action the healing of the wound is prevented, the matter frequently collecting in the scrotum, rendering it necessary to insert the fingers in the wound in order to let out the confined matter; the healing process is therefore necessarily slow, not unfrequently requiring several months before the wound is properly healed.

By searing nearly the same effect is produced, the end of the cord is destroyed, and the same tedious process of healing, with all its dangers, is the result. By ligature, or tieing, we have the parts tightly compressed; here the ends of the cord are also destroyed, the ligature too acting as an additional foreign body, and therefore the source of considerable additional irritation, the same healing process following operation as by the preceding ones. This latter operation was once popular in England and France, but in consequence of the risk incurred is now very generally condemned as unsafe, more animals having been lost by it than by any other means.

Having said thus much in reference to the old methods, I will now introduce the new. The instrument used for the purpose, called the acraseur, was invented by M. Chassaignac, a Frenchman, for the purpose of removing polypi in the cavities of the human body, and which has been used in this country for several years past, by the most eminent surgeons

for the same purpose ; it is particularly adapted for the removal of hemorrhoids in the human family. I recently used it for the same purpose on a mare, very successfully ; also for amputating the anterior half of the tongue of a horse, in consequence of mortification, the result of injury and exposure on a wrecked steam tug. This animal went to work in a few days after the operation.

Castration with the acraseur was first performed in France, where its success soon made it very popular ; it was next practised by M. L. Basse, Veterinary Surgeon to the Emperor of Russia. Its success in these countries soon attracted the attention of our English brethren, who, upon testing its merits, were convinced of its advantages over all other methods, it proving highly satisfactory in every particular. Having received very flattering accounts of its success, I determined on trying its working, and was so well pleased with the result, that I determined on introducing it in this country, which I have accomplished so successfully that all who have witnessed its practical application give testimony in its favor. In over one hundred cases operated on by me in this vicinity during the last year, not a single case was attended by any bad results, but all were well in from one to two weeks; twenty of the above were the property of a single individual; their ages varied from one to five years, the older ones suffered no more than the younger ones, which is not the case with either of the other methods. The following named Veterinary Surgeons, who have witnessed some of the above operations, have adopted the new method, which has proved equally successful with them: Isaiah Michner, Bucks county, Pa.; Wm. Wisdom, Wilmington, Del.; Robert McClure, Philadelphia ; Jacob Ditts, Mercer county, N. J.; Wm. T. McCoun, Oyster Bay, Long Island ; Joseph C. Higgins, Summerville, N. J.; Edwin H. Palmer, Westchester, Pa.; Wm. Hutton, Washington county, N. Y. Several others practicing as Veterinary Surgeons, who have witnessed the operation, have also adopted it. I have been called long distances where a number of colts were in the same neighborhood for operation, and I have yet to meet the individual who offers any objection to the operation, after witnessing its practical working.

The manner of performing the operation differs only from the other methods in the removal of the testicle. This is done by applying the instrument to the spermatic cord, which is separated by turning a thumb screw attached to the instrument; no bleeding follows the removal of the testicle, and the colt is let up. I claim for this operation: first, that it is safer, better, less painful, and more scientific than any other at present known ; second, that the wound heals quickly, seldom requiring more than two weeks, and usually not more than one ; third, that the operation is less troublesome to the skillful operator, as well as to the owner of the animal, as the colt is done with so soon as it is let up ; no other treatment being necessary as in other operations, such as keeping the scrotum open, etc.; fourth, usually little or no swelling takes place, and no more hemorrhage than by any other operation ; fifth, no dressing is necessary.

This instrument, like many other useful inventions, may be brought into disrepute by bungling operators as it requires care and skill to use it to advantage.

"Will the Profits of Wool Raising Diminish?"

On this the N. H. Journal of Agriculture remarks: According to the last census, the total amount of wool raised in the country was 60,511,343 pounds, while the amount used in manufactories, was over 80,000,000 pounds ; thus leaving a deficiency of full one-third of the whole amount raised to be supplied by importation. And this deficiency, great as it must appear, it should be remembered, existed at a time when the country was at peace, and when the immense cotton factories of the North were in full operation. The census report states that the aggregate value of the annual produce of these manufacturing establishments amounted to over $100,000,000. Yet notwithstanding this vast amount of cotton goods forced upon the market every year, at prices so exceedingly low, as to operate to largely diminish the consumption of wool by the substitution of cotton, the business of wool growing and sheep husbandry was generally deemed, we believe, one of the most profitable in which the farmer could engage. It needs no argument to show that what it has been, in this respect, it must continue to be in a much greater degree—as must be obvious to every one who will give to the subject his careful consideration. It also should be remarked, that wool is not now, and for some time cannot be, subjected to its former competition with cotton, and consequently must command the entire home market. With these facts before us it is evident that the demand for wool, for years to come—or until we shall be able to obtain cotton—will be larger than the supply, and that wool growing will continue to be one of the most profitable pursuits to which our farmers can give their attention. So large is the regularly increasing demand, that within a twelve-month we expect to see a further advance in price. At any rate we can see no cause that will operate in the other direction for twice that length of time. Farmer Careful, to be sure, who bases all his operations on the supposition that one extreme must follow another, has sold his sheep. He says that one extreme has been reached, and the other is near at hand—that wool and mutton are going to be cheap—and congratulates himself on having sold his sheep while they commanded a high price. We don't believe in his logic, and shall do all we can to prevent others from doing so.

The State Wine Growers' Association.—The Secretary of this Society announces that a meeting will be held in this city on the 23d inst., and it is hoped that every vineyard in the State will be represented by delegates. The value of such an association to our State, and its benefit to wine-growers especially, should call forth a large attendance on the occasion, for some important matters are to be discussed for their especial benefit. We shall allude more fully to this after the meeting.

French Dairies.

A gentleman lately visited some of the chief French Dairies with the object of ascertaining the best breeds of that country for general dairy purposes. He has written: "I have met with a good cross between the Cotentin and the Suffolk, and their owner states that some of his cows (exceptional ones) yielded thirty six quarts per diem. He speaks very highly of the Suffolk and Angus. The writer, however, is an enthusiastic favorer of the polled varieties. He states he saw a grand collection of Bretones, Dutch, Cotentin, Flemish, Swiss, etc.; the palm, however, was awarded to a quite new variety, some of which were stated to yield 36 litres a day, (nearly 40 quarts.) At the Imperial dairy the Swiss cattle are the favorites, where it was asserted that they average 36 litres, and that one or two cows could be forced up to 40 liters (48 quarts) per day.

To the above may be mentioned the following account of a good dairyman in France. He states "that the Prussian is considered the best milker, and is the sort preferred at the Bois de Boulogne. She keeps on milking a long time, yeielding sometimes 35, and averaging 24 litres per day (the litre being rather more than a quart.) The Dutch cow is a very good milker, and soon adapts herself to change of pasturage. Her milk is found particularly excellent for making cheese. She yields sometimes from 30 to 35 litres, and averages from 22 to 24 do. per day, and keeps her milk well. The Flemish cow is very good for butter, and will give about 24 litres, and averages 16 to 20 litres daily. The Cotentins are also very good butter makers, but they do not keep their milk more than six months. The Breton cow yields very fine milk, but the quantity is small. It seems strange that at the Bois de Boulogne I should meet with seven breeds and cross breeds, of shorthorns, but not one pure English bred cow of any breed.

[Editorial Correspondence.]

A Trip to Sonoma Valley.

HORTICULTURAL GARDEN.

Among the noted places about Sonoma is the Ex-Horticultural Gardens, about one mile west of the town. They were originally started by the Sonoma Horticultural Society in 1860, under the superintendence of Col. Haraszthy, on a plan similar to the European Gardens. Col. Haraszthy, President; Judge Bright and William Boggs, Directors. The capital stock was $5,000—divided into 500 shares at $10 per share, of which only 350 shares were taken. Ten acres were purchased in one of the best locations in the Valley, near Sonoma Creek, the price paid being $80 per acre.

A variety of seeds were procured from the Patent Office and some by purchase, also trees, shrubs, and foreign grape vines, some imported and others from the late Mr. Osborne, of Napa. The Company distributed, since starting, about 60,000 vines and cuttings. The garden is laid out in four squares, bordered with rows of English walnuts and soft shelled almonds, the latter being, at the time of my visit, in full fruit. There are two acres of foreign vines, which will come into bearing this year, comprising about twenty varieties of the choicest foreign grapes.

Owing to want of patronage and support the undertaking was abandoned and the society dissolved. The grounds have been purchased by Jas. S. Lawson, of San Francisco, who is now commencing to improve the grounds and vineyard and erect a house and buildings for his future home. It is a most valuable piece of property and will prove a good investment to its owner.

Directly opposite the Horticultural Garden is the vineyard and orchard of William Boggs, comprising thirty acres. He has 12,000 bearing vines, the majority being of the Mission variety; about 3,000 foreign varieties, as samples of kinds usually grown in hot-houses, which have done perfectly well in the open air. Among these is the "Seedless Egyptian Grape," or Ladies' Finger, which were sent from the Patent Office to the Horticultural Society in 1861. They have thrived well, in open air, and many cuttings have been distributed. The fruit has proved satisfactory, but has not yet been tested as to its qualities for making wine. The wine made last year was as good as any in the valley, and he expects to make the coming season about 100 casks. From the foreign vines, some twenty in variety, he intends selecting four varieties only of the best to grow from, excluding the others. Mr. Boggs received the premium of a silver cup at the Santa Rosa fair, in 1861, for the best vineyard of ten acres. I noticed, also, about 600 vines of the Mission grape, which are fourteen years old, having borne as high as sixty pounds to the vine, and I am told still yield as much as ever.

The soil is a red, gravelly loam, a mixture of the valley soil and the mountain, which make the produce much better.

It is a mistaken idea, he thinks, that the valley land is not capable of producing as good grapes and wine as the hill, sides. The valleys here are as warm and dry, in the dry season, as the hill-sides, and the sun has as strong an effect as on the mountain range. No irrigation is used in the valley, it not being necessary or advisable, and the excellent quality of the fruit is proof of this. It has yet to be proved, if the valleys are in any way behind the hill-sides in the quality of the fruit or wine.

Mr. Boggs came into the valley in 1846, in time to take part in the war under Commodore Stockton, and has been engaged in planting vines since 1847, having been in the valley seventeen years, and on the present place five years. The place originally cost $1,600, and he has since refused $5,000 in gold, with the improvements.

There is no reason to dispute the fact, that the planting of vineyards has, alone, greatly enhanced the value of land in this valley, as can easily be proved; and land has more than trebled in value in the last few years.

Mr. Sears, whose place nearly adjoins Mr. Boggs, has one of the oldest and best orchards in the valley, comprising 15 acres and over 2,000 fruit trees, mostly apples, with some

pears, nectarines, plums, etc. The crop of fruit last season, of apples and pears, amounted to about twenty tons, principally apples, averaging 200 lbs. to the tree, through the orhard.

On the place is an artesian well, 600 feet deep, the only one in the valley, the water being strongly impregnated with sulphur, said to be equal to the water at Sulphur Springs, for bathing. Nearer the house is a well 375 feet deep, of *pure water.*

The vineyard contains about 1,000 vines, ten years old, of the Mission variety. He lost 1,500 vines three years ago which were destroyed by grasshoppers.

I tasted some wine, which was taken from barrels that had been left in the open air, or rather, *made itself*—not having been disturbed during fermentation. Some which had been bottled possessed a fair flavor and sparkled like champagne, but I fear it will not stand age as well as other wines.

Mr. Sears has 700 acres of land around the creek. On the ranch and in the mountains are about 1,500 head of cattle, and some half-breed horses. The former being owned jointly by Mr. Sears and Mr. G. P. Swift.

Col. Butler's vineyard is under the charge of Mr. Lawler, during the absence of the proprietor in the East. I learn from Mr. L. there are 44,000 three-year-old vines and 22,000 young vines, mostly Mission, except five or six acres of foreign varieties. Some wine was made last year.

P. J. Vasquez has a vineyard in the town, near the plaza, containing 3,000 four-year-old native vines, 4,000 two-year-old, and 1,000 foreign vines two years old. The soil is a sandy loam and the grape thrives well. He has about 300 fruit trees in the orchard.

There are a number of other vineyards in and about Sonoma, Dr. Warfield's, Crohn & Williams, and others which I was unable to visit.

William McPherson Hill, Ex-President of the District Agricultural Society, has a vineyard about six miles from Sonoma of 10,000 vines from one to four years old, all foreign varieties but about 800 native, nine years old. He intends to make wine exclusively, and also raisins, from the crop of Malaga grapes. This feature seems to be overlooked in this valley. I see no reason why raisins should not be made here and profitably, and hope this department will receive some attention. In the orchard are 2,000 pear trees of choice varieties. Mr. Hill is also devoting considerable attention to stock matters, having on the ranch a large number of horses and cattle.

Mr. G. L. Wratten has a fine place just on the borders of the town, which is being laid out with much taste. The house is adobe, but like many others altered to modern style with every comfort and convenience. The garden and orchard comprises about three and a half acres; vineyard, orchard, etc. He has 1,000 bearing vines, mostly foreign. In the garden are some fine specimens of the weeping oak tree. On the the place I noticed the following stock: thoroughbred short-horn bull "Navigator," three years old, bred by William Hurst, of Albany; his sire was Imported "Neptune," (1,1847.) Also some fine calves sired by "Harold IV;" "Black Bird," white gelding, perfectly white, three years old. a good traveller, sired by an Australian horse, dam, California stock. Mr. W. has also some thirty head of American stock.

About two miles south is the orchard and garden of Judge S. B. Bright, numbered as lot 582 in the city of Sonoma. The orchard contains nearly 1,000 trees of various kinds, apple, sear, plum, cherry, apricot, quince; also, English walnut, figs, pomegranates and persimons. I noticed quite a choice variety of ornamental trees and shrubs, among which were specimens of red fir, alanthus, bear berry, redwood, manzanita, English and Irish broom, laburnum, blue gum tree, (from Australia) cork oak, soft shelled almonds, full of fruit; black walnuts, China tree, filbert, etc., and a hedge of 800 Osage orange.

The vineyard contains 5,000 native vines, in bearing order and about 1,000 foreign varieties. He made some excellent wine, which he called "Rose Wine," of a superior flavor and bouquet. There were sold last season about four tons of grapes from the vineyard. I noticed a grape vine grafted on the alanthus and in full vigor. Some specimens of cactus of immense size, which produce bushels of fruit, esteemed of a delicious flavor.

The improvement of the valley is dated from the time of Col. Haraszthy, whose untiring energy and perseverance has been the means of inducing others to come and locate in the valley, plant vineyards, and build their future homes. This is devoting resources to noble uses and contributing a healthy influence through an extended community, as well as imparting and adding to the promotion of agricultural improvments and by correct and well directed sentiments and careful ideas, converting the wilderness, and causing the sterile fields to bud and blossom in magnificence, which will be as a monument to the taste and energy of those who have made it so.

The soil and climate, as well as the seasons, are unsurpassed, and adapted to the culture and growth of many of the tropical fruits and plants, as well as rare exotics, and scarcely a fruit or plant growing in hot-houses in the east, but what can be successfully raised here in the open air. The orange, lemon, fig, olive, almond, and pomegranate, together with our own fruits, may be seen growing side by side in luxuriance, of large size and delicious flavor. The soil is rich and fertile; that in the hills red, volcanic soil, crystalixed sulphur, etc.; in the valleys, a rich, gravelly loam, as well as a variety of soils; and in the bottom lands, a sandy loam well adapted for all kinds of crops, as well as sugar cane, rice, tobacco, hemp, etc.

In the valley, three feet below the surface, is found a hard bed of clay and a layer of gravel stones mixed, forming a kind of cement and acting as a good drainage for the upper soils, and an advantage as a subsoil for the vineyards. There is also, a block soil of a vegetable decomposition, called black vegetable mould. The land, from valley to hill-top, is strongly impregnated with iron, magnesia, and sulphur, all favorable to the growth of the vine, as analysis has proved. The hills and valleys, at this season, are carpeted with numberless varieties of the most beautiful wild flowers of every hue and surpassing brilliancy, presenting a most gorgeous sight. This is not much of a mineral region, as yet. Rich springs of water arise in the hills and flow through the valley.

The agricultural resources in the valley are already developed to a great extent, and it needs but encouragement to develop new ones, though the soil is much better adapted to the culture of the grape and wine.

The hills are also adapted to agricultural purposes, and abounds, to profusion, with wild flowers, clover, and grasses, which makes excellent hay, as well as food for stock, nearly the whole year round.

Two miles from Sonoma is a mountain or hill of chalk, of the color of meerschaum; it is used in the schools, and pipes have also been made from it of a good quality. Petrified trees have also been found in the mountains, specimens of which were shown us.

Wine making is yet in its infancy, yet the resources have been sufficiently developed to prove that here are to be found the elements for future greatness in this department. The soil is rich and productive—the people are devoted to their occupation for they understand the business they are engaged in, and give the right direction to the labor in a scientific manner, their opinions being based on practical experience, as well as general observation.

Wine making, with all the advantages of soil and climate, which Nature has so liberally supplied, must yet occupy a prominent position, for it will exceed in value any branch of business in the valley, and become a source of industry and wealth, in future years.

Silk and Silk-worm---Llama, Alpacca and Vicuna---Live Fences, Etc., Etc.

Rio Bravo Ranch, March 20, 1863.

Publisher Wine, Wool and Stock Journal:

Dear Sir:—Although a long distance from any Post-office, your *Wine, Wool and Stock Journal* reaches us regularly. We believe it to be a beneficial paper for California, if well patronized as it should be by all of the farming and grazing community of this State and Oregon.

Silk, as well as Wine and Wool, can be talked of to advantage, and in the near distance will become one of the leading staples of this State. This congenial climate, with its long continued dryness and even temperature is peculiarly adapted and beneficial to the life and growth of the Silk-worm, saving much care, time and expense in the production of the silk, and the rearing and growth of the worm. The mulberry can also be grown like Jonah's gourd in favorable soils. The long continued mild and even weather during the season of operations allows one to make just and correct calculations as to what he can and should do to favor the working of the silk-worm, winding its cocoons, etc. I may be allowed to predict that in ten more years we will produce not only silk, but the manufacture of fabrics to a considerable extent on this Pacific slope at a cost of the raw material less than the European silk.

The Llama, Vicuna Alpacca Goat and Sheep;—animals of these allied species will flourish on California soil. The climate being free from dampness and that prevailing humidity so injurious to these animals in Great Britain. Moist lands and the continued dampness of the atmosphere are very injurious to all animals approaching to the sheep kine.

In this latitude the goat thrives and multiplies without care the year round. We are anxious to introduce the Cashmeres among us, that by crossing upon the common goat we may grow both flesh and wool. There are several kinds of goats in Asia that produce wool or hair valuable for the manufacture of clothes and shawls. But the Cashmere goat is considered preferable to all others, producing more wool; their flesh is palatable, and they live well in barren mountainous districts, and living on weeds and coarse herbage fits them for many portions of our country where sheep would not thrive to advantage. Mr. S. S. Williams, of Granville, Ohio, is one of the principal breeders in the free States.

Live fence, and its value. The least material made of growing and kind of soil suitable for the hedge might be profitably discussed through this journal. If we can find some tree or shrub that will readily take root and grow upon our moderately dry intervale soils sufficient to form a protective fence, it would be of immense value to the citizens and State, as well as convenience upon the valleys and plains where wood is scarce and lumber dear.

Can the "Osage Orange" be grown upon a dryish soil? and has any person experimented with this shrub in this State? This native of Texas is much used for fence in some of the Middle States. The white willow is of rapid growth on moist lands, and makes a good and everlasting fence, and valuable for wood and timber.

Yours, truly, S. W. Jewett.

The Wool Market.

Regarding the present condition of the Wool market prices have of late ruled from 1½ to 2c per lb. higher than about a month ago; say for American and Merino cross, from 24½ to 26c for three-quarter, and full blood Merino 26½ to 28c.

Choice Wool, 25 to 27c; some choice parcels in extra condition, 27½ to 28c. Medium, 23 to 25c.

Coarse and inferior, 22c and under. Some lots have gone as low as 15c, being burry and badly put up.

Burry Wools are much more difficult to move than any former year, owing to the fact that orders have been received from the East not to buy burry wools. The bulk of the receipts of that class are in store waiting a more favorable market.

It is somewhat doubtful whether the rates will be maintained during the season. We notice to-day a certain degree of dullness among the most important buyers, the cause of which may be the increased rate of insurance charged on produce shipped. Unless a very great decline should take place in the Eastern wool markets, we do not however really expect to see lower rates this year, excepting to make up for higher rates of insurance.

Total receipts this year to June 1, amounts to 12,287 bales.

Shipments in May by steamer and sailing vessels amounted to 2,072 bales. This does not include the wool by the "Rattler," just cleared, which even up to time of going to press we are unable to procure.

The large Spring clip of wool of Flint, Bixby & Co., is at present stored at Alviso, samples of which can be seen at Messrs. Clark & Perkins, agents for Wool growers association. The entire clip of Col. Hollister's flock, from San Juan, Monterey county, about 86,000 lbs, as we are informed, has been purchased for shipment to Boston, the terms of which are at present reserved. Wool is coming in also from the Southern coast; nearly 6,000 bales arriving by the Senator.

Mining Matters.

GILROY, May 18, 1863.

PUBLISHER WINE, WOOL, AND STOCK JOURNAL:

DEAR SIR:—Amid the present excitement about the mines in our vicinity, it can do no harm, and may do good, to present the facts. No precious metals have yet been developed in paying or remunerative quantities in the mountains adjacent to Gilroy Valley. Antimony with a little silver in it is very abundant in continuous and well defined ledges, and several companies are now vigorously at work sinking shafts and tunneling to ascertain whether the quantity of silver will increase sufficiently by descending to a given depth beneath the surface to justify working for the silver. There is also an impression abroad that antimony, irrespective of the silver in it, would pay to ship to England or Boston, as is now the case with copper ore.

Copper is very generally distributed over the surface of the country, being found in all directions. In many instances very rich specimens of copper ores are found on the surface of the ground, but no paying quantity of paying ore has yet been found. Several companies are tunnelling hills and sinking shafts for leads supposed to lie beneath, where good specimens are found on the surface, with what success remains to be seen.

Quicksilver bearing rock has also been found in the direction of the Almaden Mines from Gilroy, and a company organized under the State law, which is now sinking shafts to strike the main ledge or deposit.

No fortunes have yet been realized from the mines about Gilroy, for the very good reason that it is only a few months ago whilst we were straining the eyes and arms of our imagination to see and grasp the fowl that lays the golden eggs beyond the Sierras, that some returned miners became suddenly equally enchanted with our own prospects at home. It is returned Washoeites who are most sanguine of our ultimate success here. And just at this moment fortunes are prospectively and perspectively as plenty as blackberries in harvest; and doubtless in the great lottery there will be some prizes, and perhaps princely fortunes distributed.

Very respectfully, D. HUBER.

FINE ARTS.

THE LARGEST ASSORTMENT OF FINE ENGRAVINGS OF ALL Styles, including a splendid variety of Sporting Subjects, can be found at the Store of

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ARTIFICIAL BONE FILLING

FOR DECAYED TEETH,

Put in while Soft, without Pressure or Pain.

ACHING teeth or mere shells can be filled with it, and restored to health and usefulness by the discoverer. DR. PEARSON, (late Pearson & Crane,) No. 653 (Old No. 187) CLAY STREET, a few doors below Kearny. Vulcanized Rubber Work done if desired, and satisfaction guaranteed, or gold substituted. All Dental operations will receive Dr. Pearson's personal attention.

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PURE THOROUGHBRED SAXON AND AUSTRALIAN MERINO RAMS, for sale by

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Expressly for Sheep Wash,

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The undersigned has on hand, and contemplates keeping for sale, animals of strictly pure and unmixed breed, obtained from some of the best importations. To those unacquainted with this class of Hogs, a brief description will suffice:

The true Berkshire is docile, short legged, round in the loins, fine hair, ears small and erect, square on the back, never sharp even when low in flesh, full in the ham and shoulder, short snouts, tend to fatten when six to nine months, and not expending the food wholly in growth, attaining 400 lbs. weight readily at 18 months, or making 1¼ lbs. per day, for the first six to eight months, of dressed meat. In short, giving greater size than the Suffolk, without the coarseness of the Chester white breed. The Berkshire is classed properly with the "large breed" of Hogs.

The subscriber is conveniently located for shipping: being but a short distance from both the Harlem and Housatonic Railroads; and but a few hours from New York, Albany, Bridgeport, Pittsfield, etc.

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CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SAN FRANCISCO: JULY, 1863. NUMBER 7.

For the Wine, Wool, and Stock Journal.

WINE PRESSES—No. 2.

BY ARPAD HARASZTHY.

Wine presses are used for pressing the grapes in order to extract from them, by pressure, all their juice. We say all their juice, but we mean only in a practical manner, or as far as practicable. To utterly extract the juice is almost impossible, nor is it necessary for wine-makers. Wine presses are necessary in making both red and white wines, although both are sometimes made without. For red wines they are necessary to press out the juice that remains in the skins and stems after the fermentation is over and the juice drawn off. The liquid coming from the pressure is second quality wine. In white wines it is used to press the *whole grape* not yet bruised. The first juice running off from under the pressure is white wine, of whatever color the grapes are. The second juice, or that coming out when the pressure can continue but a little longer, is second quality red wine, or is generally styled as such, although we give it one rank higher.

There are many kinds of wine presses, each country giving its preference to some one system or other. Of the principal different styles, there are the Lever Presses, which are the most ancient; the Pulley Press, the Screw Press, and the Hydraulic Press.

The LEVER Presses are all of them uniform, consisting in a long beam acting on the principle of the lever. Its resting point is near the platform of the press and consists of a stout staple traversing the beam and solidly fixed to two small upright stout posts, on each side of the beam; this latter swings up and down between these posts. To press, they put huge weights or stones on the further end of the beam, which, by its own weight, exercises a considerable pressure from down upwards; the stones placed in the long end increases this pressure greatly. These presses, so primitive and so clumsy, are not without their merits. They are simple in their construction, and easy of repair, which, when once well made, they never need. They are very cheap, needing but little iron, and exercise all the pressure that is necessary. The objections we have to them are, they occupy too much space, and they are very slow in their work. These presses have almost disappeared from Europe; it is only in old nooks and corners you find them, but rest confident that wherever you do find them, there the wine is natural, unadulterated, and good. Modern civilization and modern craft has not yet reached those spots, and may they long be kept from its blasting influence. I may mention as an illustration of the length of these levers, that the one in *Clos Vougeot*, Cote d'Or, is forty feet long, and its section is about two feet each way. They make wine at the *Clos* with it to this day, in preference to all other presses.

The PULLEY Press, generally consists of a stout long beam, lying equally on each side of the platform. To the ends of the beam there are attached two pulleys, each having three, four, and sometimes more wheels; to these pulleys correspond two others,

and having one more wheel than they. These latter are attached to the lower part of the press near the ground. When the grapes are on the platform, they are covered with boards, the beam is made to rest on these boards, on their center, and the ropes of each couple of pulleys are pulled, either together, or one after another according to the number of men you have. These presses have never been used to any extent anywhere. You sometimes meet with them in the *Jura*. They have the same failing as the lever presses, slow in action and too much occupation of room. We do not privately think that as much pressure can be obtain from them as with the levers, they are, however, very simple in their handling.

The Screw Press may be divided into three classes, screws with pressure from above, from below, and from the side. In the pressure from above the screw is fixed to, or rather works in a nut that is fixed to powerful framework situated over the platform. All the parts of this kind of press, are composed of huge and most powerful pieces of timber. In some of this class of presses the screw itself comes down, but as a general thing the screw is stationary, that is, remains at the same hight, but in turning causes a nut attached to a cross-beam to decend toward the platform. These presses are worked most generally by levers, and always on that principle. Instead of levers, they use in Champagne an immense vertical wheel or tread-mill, upon which four and five men can work at a time. The screw, in this case stationary, is made to turn around its axis by an endless screw attached to the end of the pole coming from the centre of the tread-mill. This kind is used almost exclusively all over Champagne; it works very well, quite fast, and the pressure is immense, but we censure it for occupying too much room, being rather costly, and having too many hands to work it. In Eberbach, where the Steinberg wines are kept and made, we saw in one room, the ancient church, thirty-two presses. They were all of them presses with the pressure from above, and furnished with levers. Their screws were all of wood, but that did not form their most striking feature; it consisted in their having on the end of their levers attached, a pulley, through which passed a rope, one of whose ends was solidly fixed to the floor, and the other to an upright pole. This pole was turned around its axis by another lever. The pressing power was then given by means of a lever first, then a pulley, and then another lever. This of course is a very powerful press, but there are too many things about it, and the handling of so many things not only requires hands that have had some experience, to do them with profit, but also requires a great deal of time. We have seen a press of this kind since our return to California; it had all the new improvements attached, but it still has the old objections, too much time and too much room.

The Press with the pressure from below, consists of a screw, generally very powerful, coming up through the platform. This screw has on it a nut which moves up and down and exercises its pressure by means of levers upon the mass to be pressed. These presses, or this system of press, is the one to which we give our preference. Our reasons are, that it occupies less room than the others, while its power is in every case as great; it needs less working hands than the others; it is simpler in its work, more compact, and can be placed anywhere in a building, up-stairs as well as down; a thing that cannot be done with any of the presses we have enumerated. The wine press of this system, whose use is the most general in France, is that invented by M. Dezaunay, of Nantes. We have made use of this press, but find it has too much machinery. Mr. Dezaunay should not have left the simple screw and nut for so many other little details. In Mr. D.'s press the levers are not horizontal, but perpendicular, and the nut is made to move up and down by the system of cog-wheels, in which consists the peculiarity of Mr. D.'s invention.

Allowing due merit to the invention of Mr. D., we after all, give our preference to the simple screw and nut, raising and lowering itself by its levers. The iron work about it is so solid, so large, that there is no necessity or even probability of its getting out of order. Simplicity, solidity, and saving of time is what we need most. Of wine presses having the screw from the side, we have heard, but we have never yet been able to see one. They consist in a large box one of whose ends moves forward and backward. The screw only moves around its axis, while the nut causes the pressure. Levers are used in this kind of press. Upon this system we cannot express an opinion, as we never yet have seen one work.

Hydraulic Presses, when they were applied for the first time, it was thought would replace all others, but it has happened otherwise. Although many years have passed since their first application, their use has gone away entirely. The Rhine was their last foothold. We saw one which was still made use

of in Hocheim, but they had come to the conclusion that it was not practical. The chief objections made against the Hydraulic Press is, that it costs too much, gets out of order too easily, and requires too much care when not used. It is only needed two or three weeks in the year, and you have to watch it with the utmost care during the whole of the year round, else the rust eats it up, and it can no longer be made use of; it is spoiled. These reasons are quite sufficient to reject its use. The power of this press is enormous, but such a great power is not needed. When the grapes undergo a certain pressure, they yield up bitter oils, which communicate to the wines a most unpalatable taste; and the second quality wines as everyone knows, are already not too palatable. Then, when the last juice pressed out is intended for distilling, the time it takes to get out these last drops, is worth more than the small quantity of juice you may obtain by your immense pressure.

There is another press whose date of invention goes back but a few years, and which is fast gaining credit and popularity among the principal wine-makers in France. It was invented by a Mr. Benoit, of Troyes, in the Department of Aube. The pressure is from the side, and is communicated upon the mass by a series of cog-wheels and two immense sliding straight cogs. The wheels are put into movement by an endless screw attached to a crank. Two men are sufficient to work this press, which is maneuvered with the greatest ease and rapidity. Its power is only second to that of the Hydraulic Press. But in spite of all its fine parts we have to acknowledge that it is too expensive, costing in France, according to size, from $300 to $400, and that it is too complicated. The great quantity of iron around it is liable, at any moment, to get out of order, and needs a very skillful mechanic to put it in trim again, let alone the care it needs from one end of the year to the other. These systems of wine presses are the most popular and the best known; there are several others, but they hardly can be said to exist, so limited is their use. Of the systems enumerated, there are many different shapes, great differences in the details, but the principle, and the general construction always remains the same.

There is as much partiality existing in relation to wine presses as in everything else concerning the wine business, each one having his preference, and each upholding that preference with tongue, nail, and tooth.

The reader will perceive that the only faults that we have accused the different systems of, are too much manual labor; too much occupation of room; too much time for maneuvering; too much cost and too much complication. These faults not much felt in Europe, are of the highest importance to us in California; labor, room, and time, are all money with us! The reader will also remark that we have given our preference to the press having its screw stationary and the pressure from below. You must not be deceived by the expression, pressure from below; this expression was only created to distinguish this press, which has its screw fixed *to* its platform, from the press having its screw *over* its platform. In reality in both cases the pressure is from above. Our reasons for preferring this system we have already given, and need not repeat. But when we acknowledge that we prefer this system, it is meant only in its simplest form; a large stationary screw, a box to hold the grapes; a sliding nut and a couple of levers. If your vineyard is very large you may replace your levers by steam power, but do not alter the rest. This is the simplest press there is, and it needs no care to be taken of it from one vintage to the other. Simply, when pressing is over, clean your screw and nut thoroughly, and run melted tallow over them. This preserves them from year to year and there is no anxiety, no trouble, no expense.

Although we give our preference to a certain kind of press we do not condemn the others altogether. Every press is good that will press out a certain quality of juice in a certain time. It very often happens that you have plenty of room, and those presses needing much, would not be inconvenient to you. It also sometimes happens that you have plenty of time, but that does not happen often with us.

A good press should be able to press four times in a day of ten hours, and leave the remnants of the grapes perfectly dry and hard. Four times in one day is quite sufficient even though it be the remnants that you are pressing. Of course the hands that load the press are the same that turn the levers or wheel. If there are two different parties the work goes on faster.

If it is white wine you make, your press should be able to press all the hands in the vineyard can pick in one day. You may make your press as large as you please, and if large, have more hands to pick in the vineyard; if small, have less.

A press, when done with for the season, must be washed all over with hot water, and all the corners carefully scraped out; all the iron parts must be carefuly cleaned, and hot tallow poured over them. This

preserves them from the dangerous contact of the air and any humidity it may contain.

The press should be left after use, if movable, in a dry place, and where the light can penetrate. If it is not moveable it should be built on a spot that is dry and has enough light. Should you not pay attention to this, your press will cover itself with mold which even works itself deep in the wood, and never can be got rid of. Of all the tastes a wine can have, a musty taste, we think, is the worst. About once every month you ought to examine your press to see if it needs any further care. Before it is used, you must have it thoroughly cleaned, the iron as well as the wooden parts. Care in everything makes good wine.

Vinegar.

Who does not know what vinegar is? Who has not used it? This one might think, would be enough to stop us from giving a definition of it, but we must confess, though we be accused of presumption, that we will still go on.

The word vinegar is a corruption of the French word meaning the same thing, *vinaigre*, which in that language, signifies sour wine. This implies that vinegar was originally only made from wine; since that name was given, however, Science has made enormous forward strides and vinegar is now made of nearly every known substance that has any sugar in it. Be this as it may, we are of the opinion that when the word, vinegar is mentioned alone, it should retain its original sense, that is, the product coming from the souring of wine. Those vinegars made from substances foreign to the juice of the grape ought always to be defined so that one might immediately know what they are made from, as for instance, cider vinegar, beer vinegar, wood vinegar, etc. Vinegar takes birth from the acid fermentation of the wine; the wine is the product of the alcoholic fermentation of the must, which, as the reader knows is the juice of the grape. The pressed juice of the grape or must, contains sugar, water, and several other parts, but no alcohol. It is only after fermentation that that supstance appears, and then the must is called wine. The sugar has almost entirely disappeared and made place in the liquid for the new body, alcohol. But alcohol was not the only substance formed by the fermentation of the must, there was another body, a gas, carbonic acid, which on account of being a gas escaped and is not found in the liquid if no previous precausions were taken to arrest its escape. The weight of the sugar in the must, before fermentation, is exactly equal to the sum of the weight of the carbonic acid and the alcohol after the fermentation has taken place, or when the must has become wine.

In the vinegar the alchhol has, in its turn, made place for another body, which chemists call *acetic acid*. This transformation is made by a fermentation termed an *acetic fermentation*. After this, there is a general decomposition of the several parts of the vinegar which is named the *putrid fermentation*. Since the reader now understands what we mean by the word vinegar and has some idea from what it takes its birth, we will proceed to give a few instructions how to make vinegar, either for home consumption, or for a limited trade, out of wine. The oldest manner, which is the most simple and which, in our opinion, makes the best vinegar, is to expose your sour wine to the sun in a barrel, or a jar. The exposed surface of the wine should be the greatest possible, in order that the operation go on quickly. At first there is formed on the surface a sort of grayish skin, hard to tear; this gradually becomes whiter and thicker, and is more easily separated. This we call *flowers of the wine*. The surface of the liquid right under the *flowers* is already considerably more sour than down lower. These flowers sometimes get an inch and even two inches thick. In the meantime, on the bottom of the barrel there forms itself a slimy, gluish sort of matter exceedingly hard to part and in the shape of strings or rope. The whole bottom is soon covered with this matter: It is called the *mother of vinegar*. It was thought commonly, until very recently, that the whole formation of the vinegar depended upon the previous formation of the mother, and upon the acidifying matter that it contained. Berzelius, was one of the first chemists who contradicted this theory: many other chemists have sustained him, while he had at the same time some opponents whose reputation as good chemists was very widely spread. Berzelius denies altogether the participation of the mother in the formation of the vinegar. Very learned chemists of later dates, however, acknowledge that the mother has something to do in the formation of the vinegar but do not accord to it all the importance that was formerly ascribed to it. They uphold that the principal source of the transformation exists in the *skin* or *flowers* on the surface of the wine. The one who advanced this doctrine for the first time, we believe, is M. Pasteur, a very learned French chemist who has laid before the French Academy of Sciences several documents upon the subject, which were received very favorably. But let us return to our vinegar barrel. When the vinegar has formed itself, you

draw off about the twentieth part of it and place it in a vase destined for that purpose, after which you can replace the vinegar you took away by the same quantity of wine. This you do about every eight or nine days, which if the weather is warm, is quite sufficient time for the new quantity of wine introduced to transform itself into vinegar. This method, in France is called the Orleans Method and is in universal usage in all wine districts, though principally in the departments of the *Meurthe* and Loiret, which produce the most renowned vinegars. In those departments, where they make a business of producing vinegar, they start the first barrel by filling it half full with good strong vinegar. This of course hastens the formation of the acetic acid.

There is a second manner of making vinegar which is termed the German Method, and is much made use of in all countries, whether they produce wine or not, the vinegars thus made not generally originating from wines but from alcohol, beers, ciders, etc.

This manner consists in having an upright barrel, three-quarters full of beech chips over which the liquid intended for vinegar, is poured. These chips noted for easily souring, are previously soured by some gallons of warmed vinegar having been poured over them. There are holes bored in the staves so as to render the circulation of air complete. To divide the liquid into as many divisible parts as possible, there is a head to the barrel bored with many holes, each of which is furnished with a string, the liquid is poured on this head, it passes through the holes along the strings and finally in very minute parts falls drop by drop on the beech shavings or chips. When this liquid has passed through the chips to the bottom of the barrel it is taken and poured into it again and so on until it has become vinegar, which takes from 10 to 12 hours if the work is constantly done.

This method, quite simple in itself and very quick in its result, never produces as strong or as good a vinegar, as the first method we discribed. It needs also a certain amount of heat which must be constantly the same, and by the necessary exposure to the air that the liquid must undergo, there is great loss of bouquet and strength. These two things, bouquet and strength, are the most important qualities in the vinegar. There is another objection, it is much easier to transform alcohol, beer, cider etc. into vinegar by this manner, than it is to transform the juice of the grape. Then again, beechwood is very hard to obtain in California, as there is none growing here to our knowledge.

We, a couple of months ago, tried this method, replacing the beech first by oak chips, then by cuttings of grape vines from last fall, and then by cuttings of previous years. In all three cases, though the heat was considerable, the result desired did not come. We only noticed that after passing several times through the new cuttings, that some of the sourness with a great deal of strength appeared to have passed away. The sap in the cuttings seemed to have given new life, new energy to the sour wine. We have now on hand several bottles containing sour wine and chips of last year's cuttings, our intention is to see if these chips will actually help to re-establish the wine and render it fit to drink. When the experiment has come to a term, we will give its result to the reader, whom we hope will make similar experiments. They might in their results prove of infinite benefit to us wine makers.

If you make your vinegar by the Orleans Method, be very careful not to leave it too long on the mother, else it will start into the putrid state of fermentation. As soon as you judge by the taste that it is *strong enough*, draw off the quantity we indicated and replace by wine, or, if you have enough vinegar for the time, draw off the whole quantity at the same time into a fresh cask, which keep in a cool place well bunged up.

My next, will speak of cellars, construction, temperature, etc., etc. I intend, also, to give M. Pasteur's new method of making vinegar, by acetifying the surface of the wine.

California Wine Growers' Convention.

The June session of the California Wine-growers' Convention was held at Minerva Hall, on June 24th, at 10 o'clock, A. M. In the absence of the President, Mr. Chas. Stewart was elected Chairman. The Report of the Treasurer was read, and adopted. The report of the Secretary was then read as follows:

SECRETARY'S REPORT.

Copies of the memorial adopted by the first meeting of the Association were furnished, with letters, to each of our Congressmen and Senators. Mr. Phelps was the only one who acknowledged receipt of the document. He presented the memorial but did not succeed in obtaining a reduction of the tax.

The President and Secretary of the Association were at Sacramento during the session of the last Legislature and induced that body to adopt a memorial to Congress praying for a reduction of the wine tax. The memorial was printed, but it was adopted too late to reach Congress at its last session. Copies will be given to our delegation before they go East for the next session. We must ascribe the failure to secure a reduction of the tax at the last session chiefly to the fact that we did not move earlier and make our delegation at Washington familiar with the facts before they left here. With a thorough understanding of the matter, it is probable that the tax will be cut down at least to three per cent., at which rate we can get along very well.

The receipts of the Treasury have been small. No members have joined save those who were present at the first

meeting. We have employed no runners—we pay no officers—we have held no Fair; and most of the wine-growers have neglected to take any active measures to become members. The funds of the Society have been spent in advertising and in publishing and circulating a petition praying the State Legislature to memorialize Congress for a reduction of the wine tax.

It is important that the Association should be maintained, for the interest is becoming too extensive to be left without some general supervision, such as a State Society can afford. We should act together in collecting information about our vines and vineyards, in working for proper legislation, in making our wines known at home and abroad; in establishing foreign agencies; in obtaining such casks and bottles as must be obtained from abroad; and, perhaps, it would be well to have joint stock cellar and bottling establishments of our own, in San Francisco and New York. But, if we have no end in view, save to collect information, and to attend to the laws, there is work enough. The adulteration and counterfeiting of the wines, smuggling, the imitation of brands, unjust taxation; these are the serious dangers which will always threaten us, and require our attention; and the labor and expense should not be left to be borne by a few.

The following memorial was read and adopted:

MEMORIAL TO CONGRESS.

To the Honorable the Senate and House of Representatives of the United States:

The California Wine-growers' Convention respectfully pray your Honorable Body to reduce the tax on the production of wine to an *ad valorem* tax of three per cent.

We addressed a brief memorial, stating the main facts, to Congress at its last session, but our prayer was not granted, and we must presume that the facts were not understood. It is therefore necessary that we should make a full statement.

In the outset, we declare our willingness to pay an equal tax that may be necessary to support the Government—no matter whether the tax be five or fifty per cent. on our property, or our income. But we do not like to be taxed ten times as much as our neighbors. As a body, we are loyal citizens of the United States, and have done nothing to deserve punishment by taxation more severe than that levied on other classes of citizens.

WINE AN AGRICULTURAL PRODUCT.

The inequality of taxation consists in the fact that agricultural products as a class, are not taxed, but wine is made an exception. There is no tax on wheat, barley, oats, potatoes, wool, herds of horses, neat cattle, sheep, or hogs. Why should wine be excepted? Does anybody assert that wine is not a product of agriculture? Whatever necessarily or usually forms part of the business of the tiller of the soil, belongs to agriculture. Wool-growing and breeding of domestic animals, are ordinarily and almost necessarily connected with the cultivation of the soil, and managed as a business by farmers, and they are treated as parts of agriculture by all comprehensive writers on this subject. As the separation of the fiber from the wooden stem of flax is work usually done by the gower of the plant, so that is considered an agricultural labor. It might be done by the manufacturer, but generally it is done by the farmer. Wine is made usually in the vineyard by its owner. Sometimes grapes are bought by wine makers, but more than three-fourths of the wine of California is made by the owners of the vineyards. The grapes will not keep for any long time; they must be sent to the press within a few days after picking, or they rot. Wine is not to be put on the same footing with flour or beer, for those articles are made by persons who have no other business, and the wheat and barley from which they are made can be kept in store for years if they do not command a good price at harvest time. The first inequality of taxation is, therefore, that wine is excepted from the list of agricultural products, and taxed as though it were a manufactured article.

WINE TAXED MORE THAN MANUFACTURES.

The second inequality consists in the fact that whereas manufactured articles generally pay three per cent. *ad valorem*, wine pays a specific tax which always exceeds three per cent. on the value, and sometimes amounts to forty per cent. The tax on paper, furs, cloth of cotton or wool, and candles, is three per cent; and on all kinds of manufactured iron, the duty, though specific, amounts to about three per cent. On a few substances, such as paints, pins, pickles, and meats and fruits preserved in cans, the tax is five per cent. But on wine the tax is five cents per gallon, and in some cases that is equivalent to forty-four per cent. *ad valorem*. Anybody who wishes to contract for 200,000 gallons of wine, at eleven cents a gallon, can do so to-day, to be delivered in Los Angeles in December next, the buyer to pay the tax. Grapes were sold there in large quantity, last year, at prices varying from fifty to sixty cents per hundred pounds, delivered at the press. Twelve pounds yield a gallon of must, and the making does not cost more than two or three cents per gallon after the delivery of the grapes. The sale, at eleven cents per gallon, would therefore be not unprofitable to the man who should buy and press the grapes.

California is the largest wine-growing State in the Union, and Los Angeles County produces more wine than all the other counties of the State. Those persons who live abroad, or know nothing of the business, may think it scarcely creditable that wine should be so low in price, but the facts here stated are familiar to all persons engaged in the business, or well-informed about it. The consumer may pay several dollars per gallon, but between the consumer and producer there are several years of time, high interest, high taxes, from ten to twenty cents per gallon freight, thirty cents per gallon for bottles, evaporation varying from ten to twenty per cent., from ten to twenty cents per gallon for casks, and the profits of three or four middlemen. In Sonoma and some other counties, wine is worth more than at Los Angeles, but the tax is in every place at least three times greater on wine than on manufactured articles generally.

WINE NOT LIKE BEER.

Beer is taxed five cents per gallon, like wine; but the two liquids do not stand on the same footing. The former is a manufactured article, and belongs to a class which is taxed; wine is an agricultural product, and belongs to a class which is not taxed. Beer is made in cities, and the brewer has his own wagon, and delivers his beer regularly to the retailer, who sells to the consumer. He has a small number of kegs which are regularly returned to him. He keeps his beer but a few weeks, needs no cellar, loses little by leakage and evaporation, has no bottles or bottling establishment, does not support three or four middlemen between himself and the consumer, and makes only so much beer as has the advantage of the man who owns a vineyard, far from the market, and must make all his grapes into wine as soon as they ripen. The brewer can turn his brewery into a storehouse; the vineyard, after having cost years of trouble and care, is useless for any purpose save to make wine. Beer and wine are not on the same footing industrially, and should not be placed on the same footing financially.

THE CONSUMER DOES NOT PAY THE TAX.

It may be asserted that the consumer pays the tax; but any such assertion is false. We pay it, and we know it. If the burden did not fall upon us, we should not bother ourselves about it. So severe is the burden that Mr. William Wolfskill of Los Angeles, who is one of the most enterprising horticulturists in California, and owns 80,000 bearing vines, declares that if the tax is retained he will not cultivate his vineyard. Others say they will dig up their vines.

WINE NOT A LUXURY TO THE PRODUCER.

It may be said that wine is a luxury and ought to be taxed high. It may be a luxury to the consumer, but to the producer its production may be a necessary of life. It is bad policy to shut up the sources of public wealth, even though those sources supply luxurious tastes. Would it be wise in France to stop the production of champagne and silk because those articles are luxuries? The idea is absurd. Wine is not always a luxury. Some stimulant drink appears to be a necessity with every civilized nation; and wine, beer, distilled liquors, and tea and coffee, all come under the same head. The two latter, now the chief stimulants in the United States, almost the only stimulants used by women, were not known to civilized nations until of late years. Wine is to this day the chief stimulant of the French, Italian, Spanish and Portuguese nations, and is no more a luxury to them than coffee is to us. Wine is rapidly coming into use as a substitute for tea and coffee in California; and there is no wisdom in placing an oppressive burden upon it, or restricting its consumption. The production of an article which will drive whisky out of common use, and do much to abolish, grog shops and to diminish drunkenness, should not be burdened with severe taxes.

It is the universal opinion of well-informed men in California, that this State will become one of the greatest wine countries of the world, not only in the amount but also in the excellence of the wine; and the knowledge of the importance of our occupation to the future wealth of the State renders us the more unwilling to be ruined now by unjust and unwise taxation.

EXTENT OF THE WINE BUSINESS.

There are now 12,000,000 vines set out in vineyards in this State. The value of land, vines, dwellings, and fences, may be estimated at twenty-five cents per stalk of the vineyards —$3,000,000 in all. The cellars, presses, crushers, casks, and wine on hand, may be worth $1,000,000. The vines in full bearing will yield ten pounds to the stalk; but as many of them are growing, the average now may be four pounds, giving 48,000,000 pounds. Of these, one-fourth will be made into one million gallons of wine; worth at the end of six months, $250,000. The remaining three-fourths of the grape crop will be consumed for the table, and will be worth one and a-half cents per pound, or $500,000. The total crop for the current year may therefore be estimated at $1,000,000. The number of men employed as laborers, coopers, etc., may be 8,000. In three years the crop will be twice as large as at present, and the amount of wine three times as great. Of our 12,000,000 vines, all, save 1,000,000, have been planted within the last seven years; so the vineyards are mostly new, not half of them in full bearing yet, and we have not had time to establish our business. Years are required to ripen wine, and to establish a reputation for it and make agencies in foreign lands, and for getting casks and bottles, and so on. This tax comes and strikes us down just as we are trying to rise. If it had been withheld until we had risen and grown strong, we might have borne it, unequal and unjust as it is. It strikes down not only the wine-grower, but also the wine-merchant. The firm of Kohler & Frohling, the most extensive dealers in California wines, say they will leave the business if this tax is to be preserved.

We pray your Honorable Body to print, in one pamphlet, this petition, and the memorial addressed to you by our Association, last December, and the memorial addressed to you by the Legislature of the State of California, at its last session, on the same subject, to which memorials we respectfully refer your Honorable Body for further information relating to the interests of the wine-growers and of the State of California.

We know that it is no trifle to begin to change a national tax law, which touches nearly every branch of business in the land, and falls heavily on many; but still, there may be serious circumstances which will justify and require a change. These serious circumstances exist in our case.

We have stated all the main facts here; and we should willingly go into still greater detail if we did not fear to tire you. We make our statements with perfect knowledge, after full consideration, and with proper regard to honesty and veracity.

Finally, we again declare that we are loyal citizens, and that we will willingly pay any equal and just tax necessary to support the Government. We direct the President and Secretary to sign this petition for us, and send it to your Honorable Body.

WINE FAIRS.

Messrs. J. S. Hittell, Charles Kohler, G. W. Gilmore, Wilson Flint and R. F. Perkins were appointed a committee to present copies of the memorial to our Senators and Congressmen, and give them any further information needed.

A resolution was adopted that when the Association is not in session the officers may take any action not inconsistent with the constitution, or purposes of the Association.

Subsequently there was some conversation about fairs, and the opinion appeared to be universal that it would be the policy of the Association to hold an Annual Fair for the exhibition of wines, the main idea being not to make money from an admission fee, but to give dealers and connoisseurs an opportunity to find in one collection all the wines made in the State, so as the better to be able to compare them. Whether such a Fair should be held this year should be left to the judgment of the officers of the Association.

HARASZTHY'S BOOK.

WHEREAS, Various persons have addressed letters to officers of the Society, inquiring in regard to the best book on wine-making; *and whereas*, the success of the wine business requires that the persons engaged in it should make themselves familiar with the knowledge heretofore acquired by wine-growers in other lands; therefore,

Resolved, That we express our opinion that the book entitled "Grape Culture, Wines and Wine-making, with Notes upon Agriculture and Horticulture, by A. Haraszthy," including, as it does, translations from a number of standard works of Continental Europe, is the most comprehensive and instructive book in the English language, known to us.

The Association then adjourned.

Tobacco.

Directions for Cultivation and Management.

[Condensed Correspondence.]

Cultivation.—It is important in the early growth of the plant to plow and work deep once or twice, so that when it is ripening, the ground will be broken deep and fine. This should be effected without much interference with the roots, as that would check the growth, and prevent the plant from attaining its proper size. And hence the advantage of greater distance between the rows than the common one of three and a-half feet, because the wide rows can be plowed and worked with less damage to the roots. In all this, as in all other crops, if we wish a good return, we must "speed the plow" and hoe before the roots run out. The bed is the best for high land, because it contains more moisture where it is generally needed. The hill, retaining less moisture, is best for flat land, where there is commonly a superabundance.

Priming and Topping.—The most accurate topping is performed by measure. The topper carries in his hand a rule six inches long, and by occasionally measuring, he can regulate the priming with great accuracy; and as the remaining leaves are numbered, this governs the operator, and gain the object of topping. The topper should always carry the measure in his hand, as it serves to prevent excuses for negligence and uneven topping. Prime six inches, and top to eight leaves. We have found by experience that this is the best average hight. We sometimes, but seldom, vary from this general rule. If the land is poorer than common, or if, from the backwardness of the plant and the advanced state of the season, you apprehend frost, do not prime so high—say four inches. If you have an uncommonly rich spot, and there is danger that the top leaves will come to the ground, top in the same proportion. The crop should be wormed and suckered at least once a week.

Cutting and Housing.—As soon as the crop is perfectly ripe and ready for the knife, when the plants are well matured, (which state we cannot describe, but must leave to the experience and observation of the planter,) we then approach the most difficult and delicate part of the whole operation, and the successful planter must now be all attention. The profit of the whole farm, for the year, greatly depends on the diligence and skill exercised in the few days of cutting and curing. We should, therefore, prepare well for this state of the crop, by hav-

ing our barns close, our carts and wagons in good order, so that the work may be made as light as possible; for this is hard work, to make the best of it. To save a heavy crop, in the best manner, requires both energy and activity. The most judicious hands should be selected for cutters. When in the field, a middling, or average hand should count the whole number of plants he cuts, so that allowing each cutter the same number, one may arrive at nearly the whole quantity cut. We should never cut more nor less than will fill the contemplated barn; otherwise there is labor lost in attending to a barn not full, or the overplus is injured for want of firing. The tobacco, after it has "fallen," or become sufficiently limber, is carried to the barn in carts or wagons, hung from six to ten plants on a stick, and stowed away for firing. It is also of great importance to be particular in the arrangement of the sticks. The equal and general circulation of heat throughout the house depends on the manner in which this is done. Barns commonly have three firing tiers above, and three below, the joists. Commence arranging the sticks on the most elevated tier in the roof, to which give five inches distance; and on each tier, as you descend, you gain one inch, so that on the lowest tier, nearest the fire, the sticks are placed eleven inches apart. This disposition of the sticks, we have ascertained by late experiment, is important. The sticks of tobacco being wider apart next to the fires, gives a freer circulation, and, consequently, a more equal temperature, than the usual way of equal distance from bottom to top. The heat having more space to ascend, must be more equal and generally diffused, and will give a more uniform house of tobacco. We esteem this a considerable improvement; and if one has house room, and makes a greater difference in the proportionate distance between the sticks, it will be a still better arrangement.

Process of Curing.—We commence warming, or preparing the fires, the day after housing. We prefer what is commonly called the "bed-logs" of green, and the "feeding" of dry or seasoned wood. By this arrangement, the fires are rendered more governable. The bed-logs should be nicely fitted to the barn floor, two lengths to reach across, the large ends placed outwards, to guard against the tendency of heat to the centre. Keep up the warming fires from thirty-six to forty-eight hours, the mercury ranging from 100° to 115° F. This will generally bring the leaf to the drying state. The tail, or end of the leaf, now begins handsomely to curl, and *then the planter must be wide awake.* If he is careless, and his fires are made too hot, the aromatic oil passes off with the sap and smoke, and he has a house of red or dark inferior tobacco. If his fires are kept too low, the tobacco gets into a clammy sweat, and the oil escapes. There is much more danger of the former than of the latter evil. There is more tobacco injured by too much heat than by the want of a sufficiency. The fires should now be kept steady and regular, with a gradual increase of heat, so that in forty-eight hours the mercury will stand 150° to 160° F. It must be kept at or about that temperature until the tobacco is cured.

Stripping and Prizing.—The tobacco should be taken down and packed in bulk, in order that it may be handled in cold weather without breaking. It is then divided, by select hands, into three classes for stripping: First, that which is of the best color and quality: secondly, that which is somewhat inferior, comprising the balance of the leaf; thirdly, "lugs," or ground leaves. Some distinguished planters make more classes, but this requires more attention and discrimination, and our laborers generally are not noted for either. It is then seized, and neatly tied in bundles of four leaves of the first, or six of the second and third classes. At the close of each day's stripping, and oftener if the weather is drying, we bulk down what has been stripped, being careful to pack straight. It is left in this situation until we wish to commence prizing, and then hung, from twelve to fifteen bundles on a smooth stick, and hoisted in the barn, the sticks placed six inches apart, the hoister carrying a rule in his hand. It is important to measure, as the order will be more uniform. It should remain until the stems are perfectly dry; after which it should be taken down for prizing, as dry as it can be handled without breaking. It remains in this state a few days until the leaves are pressed together, and we have softer weather for packing. Each bundle is then carefully straightened, repacked, and heavily weighted. It is then ready for prizing. We should prize in weather when the pliableness of the tobacco will not change. Each bundle should be straight and closely packed in hogsheads in the usual way.

ACKNOWLEDGMENTS. — From Horace Waters, Broadway, New York, we have received the following pieces of Music:

Freedom, Truth, and Right—Grand March—dedicated to the 51st Reg. N. Y. S. V.

Blondette Polka—By Thos. Baker.

New Sparklidg Polka—By Cloye.

Sweet Eveline—Arranged for the pianoforte, by Mrs. Parkhurst.

Breeding and Management of Sheep.

[Extracted from the "Country Gentleman," with such alterations as are suitable for California."]

In order to form a good flock of sheep, it is, in the first place, essential, in the selection of your breeding ewes, to reject all under two years old; also such as from age have defective teeth. Yearling ewes, which have lambs the spring they become two years old, usually make poor nurses, in consequence of not having a sufficient supply of milk to give their lambs a fair and full physical developement, and all observations go to show that lambs thus raised make a miserable stock of sheep; and it is from the same reason that old ewes should be rejected as breeders, for they are too deficient in the amount of nutriment required for the sustenance of their lambs. Most sheep-raisers are anxious to raise all the lambs they can; hence, with a view to this end, they will breed from the old and young. When this is the case, it is invariably observed that much trouble and ultimate disappointment follows. Many lambs raised from such sheep will dwindle and die in August and September, and those that survive the first winter make at best very defective stock.

If the object of the sheep-raiser is to cultivate fine wool, he should select bucks that are evenly fine all over, and thick set, and as great length as can be obtained consistent with compact fleeces; great length of staple and compactness are not usually found together.

Two vigorous bucks, if well fed, will answer for one hundred ewes. The time for putting the bucks to the ewes may vary according to the convenience of the sheep-raiser, and the latitude of their location. With conveniences for the protection of lambs, the middle of March is a suitable time for lambs to come. It is desirable to have the lambs come as near together as possible. With a view to this end, the ewes should be in high condition when the bucks are put to them. In adjusting the size of the flock to the pastures on which they are to range, it must be born in mind that the smaller the flock the better the lambs will do. Pasture lands should never be so heavily stocked as to have the grass shaved to the bare ground. When there is a generous amount of feed left, the roots of the grass are protected from the action of the sun and frost.

Lambs should be weaned by the middle of June. A clover field is the best for this purpose; with a little management they can be made to eat oats, and nothing will make them grow faster. At all seasons it is more or less essential that sheep should be classified, but indispensably so in the winter. Lambs fed with what good hay they will eat, together with one-half bushel of oats to the hundred, with water convenient, will be sufficient to keep them in good growing order. A lack of convenient water is among the greatest errors of sheep-raisers. The most abundant supply of food, as above directed, together with shelter, is essential to bring fine lambs at the age of one year, and the same tender care is necessary to carry them through the second winter to mature them to perfect stock. More sheep die from diseases contracted by bad and insufficient food and the want of shelter, the two first years of their existence, than from all other causes combined. When sheep are properly divided and have an abundant supply of suitable food and water, and good shelter in winter, hospitals and medicine chests could be dispensed with.

Breeding ewes should be kept in good condition at all times. The first inducement for this is the increased quantity of wool over what they would have with moderate keeping, and you may superadd a lamb to each ewe, or nearly so. The farmer who makes it his principal business to raise sheep, should make it a prime object to have an abundance of good hay, that will supersede the necessity of the sheep-killing system of feeding straw.

There is nothing more important in sheepology, than in having them in high condition at the commencement of the winter. If your sheep are poor the first of December, they will be likely to remain so all winter, unless very great pains is taken to improve their condition by high feeding; buck lambs are more tender and difficult to raise than wethers, and the latter more than ewes. Nice attention to weaning and early feeding to grain in the fall, together with abundant feeding in the winter, will overcome the evils they are liable to if neglected.

AGRICULTURAL FAIR.—The Santa Clara Valley Agricultural Society will hold their Annual Fair in San Jose—commencing on the 16th of September. A good degree of interest is already manifested, and it is expected to make this the best exhibition of the kind ever given in this city. A subscription of $500 is now made up, which with the $500 to be received from the State, will go some ways toward the paying of premiums. The premium list will be ready early in July. We hope the county will use all efforts to make this Fair a successful one.

HORSES.—Messrs. Reed & Noyes have just arrived with their train of horses, brought over the plains, comprising a choice collection of stock, adapted to man's requirements in that line. Their real merits can be more properly seen and judged after a personal inspection, at Oldham & Crowell's Stables, Market Street. They are worth the trouble to go and see them.

CALIFORNIA

Wine, Wool, and Stock Journal.

"Festina Lente,"—Hasten Slowly.

SAN FRANCISCO, JULY, 1863.

To Advertisers.—The Wine, Wool and Stock Journal now has a liberal circulation through the State among wine-growers, wool and stock raisers, dairymen, and agriculturists generally. Nurserymen, stock-raisers, inventors of new machines, will find our columns the place to make known their business; and now is the time to advertise.

Notice.—We respectfully ask attention of our subscribers to the bills inclosed in their papers last month, and hope they will *remit us the amount.* The sum in the aggregate is large. We have waited six months for many, and ask a ready response.

Posters—Printing, Etc.—We are prepared to get up Illuminated Posters and Showbills, for Agricultural and other Societies, in a style of typography hitherto unattempted in this State; we will also execute to order, all kinds of work for *stock breeders*, race meetings, nurserymen, and others; having received a supply of beautiful cuts, specially adapted for the purpose—specimens of which may be seen at our office—address orders to the publisher of this paper.

To our Subscribers and Readers.

With the July number we commence the seventh issue of the Wine, Wool, and Stock Journal, which we have every reason to believe and know has been satisfactory to our many readers, and has been kept up fully to the standard, as promised in our first issue. We present with the present issue *four additional pages*, to make room for an article on "Sheep Husbandry, and its Importance to the Loyal States," which will be found to be of much importance to all engaged in the business at this time. We have gone on from the first number steadily increasing the size of our paper, from *twelve* to *twenty-four pages*, exclusive of the cover, in *six months*. To those who have so kindly appreciated our efforts, and liberally extended their patronage to our journal, we return our sincere thanks, and hope that they will still continue to extend their encouragement, and enable us to go on and improve our paper still more, and make it, as we are determined it shall be, a first-class agricultural journal, devoted to those great and prominent subjects, Wine, Wool, and Stock Raising, Cultivation of Tobacco, and other interests on the Pacific Coast. We have strictly adhered to the specialities of our journal, as well as its motto—"*Festina Lente*"—and hope that those who are in any way interested in such a cause as the one we represent, will come forward and lend us a helping hand by their subscriptions and influence.

The present condition of our country is one that must not be forgotten, even in a cause like ours. When those who have tried their worst to destroy the fabrics of so noble a government; when alike the snake and the Copperhead, twin brothers in sin and infamy, shall have been banished from our midst; when on every fort, and in every State in our noble Union, shall be raised again the glorious stars and stripes, which once floated so proudly before *traitors* desecrated this emblem of our nationality; when traitors have received their quietus, and rebellion its death blow, and their prime leader, the arch-devil of all, hurled down from his *false position*, "no son of his succeeding;" then, indeed, shall we become, as we are destined to be, a great and powerful country, ready to extend a welcome hand to the oppressed of every nation, who come to this our land of liberty and freedom, though hallowed by a nation's tears and blood, to redeem it from slavery and wrong.

SWISS CHEESE.

In our June number, we spoke of some of the milk cattle bred on the Alps. In this we will divert on some of the cheese made there, and specially on that which bears the name "*Swiss Cheese*," par excellence.

Division of labor, the great secret of England's supremacy in the manufacturing world, is what we meet with among a race proverbially persevering, industrious, and shrewd. To that division of labor, Mr. Bennett, of London watchmaking celebrity, traced the cheapness of Swiss watches along with their *good* quality, when specially deputed, we believe, by his co-fraternity, to inquire into the *causes* of Swiss watches every where rivaling the English ones, and driving them from markets, at one time monopolized by English markers, whose certificates still command, in some places, the highest prices, although they find it to their advantage to import the component parts of the machinery from Switzerland, to have them put together also in imitation to the Swiss style by female fingers (which at one time worked the Clerkenwell *male* hands into a fury,) and then put into an English case and sold for an *English* watch.

The principle is a plain one, and daily practiced in our midst. The boy, the girl, learn to make a watch hand and do nothing else in their spare hours

and long winter nights, than to make watch hands. It *grows* up with them, and when men and women, it's a habit still growing upon them to still greater perfection, and the same number is turned out with greater rapidity without losing in quality. Others are brought up to other particles of the watch, and stick thereto, and in the manufactory these articles, so produced in quite a number of solitary houses and hamlets, are simply put together, and distributed the world over, as the make of *one* man or firm.

And these watchmakers and muslin weavers, or embroiderers of those splendid robes which attract admiring gazers in Montgomery Street, (we hope our belles won't take offense at it), are at the same time, making a *cheese*, than better, there is made none anywhere else!—or rather allow it to *be* made in their idylic cottages. And how is this? Simply by sticking to *their* business and every body around them to his or hers. It has become there the *fashion*, not to dispute the realm of that all-powerful monarch with that of his next door neighbor, "interest," to simply keep cows, sell the milk on the spot to the highest bidder, and allow that buyer to make the most out of that bargain, by turning it into cheese or butter or shmaltz (clarified butter which keeps a good deal longer *without* salting), as he may deem best; and that buyer being in most cases a *merchant*, depend upon it, he knows how to "calculate" his chances and yet squeeze out a profit, where the farmer or owner of the cattle would have met with a dead loss, —similarly as in practical California, *individual* mining has gone out of fashion in the space of but ten years, and less.

As on long sea voyages, a clipper brig or bark cannot compete with a ship of five times the capacity, owing to the heavier *per centage* of the expenses on the earnings, (salaries and keep of officers and men and even wear and tear, in a certain proportion being the *same*, or nearly so, in the small as in the large vessels), so a man making cheese out of the milk of five or twenty cows cannot compete with the neighbor who makes it out of the produce of a hundred; the cost of fuel, labor, transportation to market, keeping of accounts, cashing the proceeds and distributing them again, varying out of proportion.

But the chief gain to the farmer by selling his milk even *in* the cow, is the accession of *capital*, that main stay of all industrial undertakings, and, is not the *first* step from farm work, strictly speaking, toward industry taken in the dairy, when *working* up the products of the field and feed, into the next marketable articles of cheese or butter? Some may laugh at this being called into question at all. As well they might at the establishment of flour mills in thickly populated cities, and then just near spots where rents are most enormous, since it would be so much simpler for every farmer to grind his grain at home where *no* rent is payable, and his own horses, servants or family members could do that work.—Could they? Most surely yes, only with this addition, that meanwhile they could do nothing else, and the value of this something else outweighs that of flour grinding, blends other advantages; and therefore, farm mills will *never* become the go, except for home use, however reduced their size and price may become. Millers add to the *capital* of farmers in their mills and skill; merchants in supplying bags or barrels, and the *cash* for the flour in the grain; thus enabling the farmer to make *his* purchases without waiting till *he* has changed his first commodity into a second. Farmers in every quarter of the globe enjoy the fame of furnishing the living patterns of greatest shrewdness, as they have plenty of leisure between the plowing and harvest time for cool calculation what to do with their produce, and does the man live who will deny that much gumption to our farmers in far off California, once that he knows them?

Make the application from flour to cheese, and similar results will be arrived at with mathematical precision. Now it works like this: A number of farmers club together and determine that they will *let out* the dairy of, say the largest among them, to a satisfactory purchaser of all their surplus milk. The contracts are made twice in the year, *i. e.* in fall for the winter milk, and in spring for the summer milk; the farmer being in those cold countries, where stable-fed milk commands about ten per cent. lower prices. The dairies usually take their names from the farms or ranches where the cheese is actually made, and in summer, from the Alps where the cattle are sent to for grazing. The prices for the milk vary according to the quality of food the cows obtain. For some mountains on which there is particularly good pasturage, there is quite a sharp competition among the cheese merchants. No sooner is the contract made than the buyer has to *advance* certain sums at customary periods, and thus the farmer comes into cash considerably before he would do, if waiting till he could realize it from cheese made by himself, thus adding to his capital, which enables him in turn to add to his stock, and the stock adds

again to the manure, and the manure to the produce of field and meadow.

The merchant takes the milk brought to the door, returns the whey and so much butter to the farmers as is stipulated, in proportion to the quantity delivered by each. He places his own dairyman and assistants on the premises, supplies salt, runnet, forms, cloth, etc., to them; makes his round among the different dairies of which one firm alone may possess several dozen in a district, receives such cheese as is capable of transportation to head quarters, and has it treated there till ripe, for sale and shipment, much in the style as already wine is bought in the grape, made and collected by the buyers in California. Two sorts are chiefly made, square or round. The merchants who have their travelers out and their stock in hand, are of course much better posted as to the demand for, and supply of, any particular kind, and determine which kind is to be made. This is usually already made a point of the contract, as for round or really Swiss cheese less cream is scummed off, and consequently less butter made than for square, or so called Limberger, which affects the milk-sellers, inasmuch as they are entitled to a certain quantity of butter at a price. The dairyman has quite an important offiee, and one of trust, as he has to record not merely the quantity of milk—which can be counter-checked by the quantity of whey, cheese and butter, but also to check the quality of the milk by means of the milk scale, and to refuse any inferior, especially "baptized" milk. For American notions, they get ridiculously low wages. Two hundred and fifty dollars a year and board having been offered as an inducement to go to Wisconsin, which is about five times as much as they get at home. However, as they are generally much attached to their native mountains, it takes something to take them away.

The merchant, after receiving Swiss cheese into his cellars, has to treat it for a year, or longer, according to size and quality, with salt applied alternately to top and bottom sides. These cheeses weigh from 40 to 150 and even 200 American pounds, and the larger the cheese the better, is the rule. The younger the cheese the sooner the salt strown on its surface will melt, then it is rubbed in and allowed to dry, and when dry the cheese is turned, perhaps every third day after being one year old. The bigger eyes the cheese exhibits on being cut, the better it is liked, but the perfect "pea" hole is preferred, and with advancing age and proper salting, these eyes fill with water, or rather salt and cheese chince, and to this chince may be traced the "nutty" taste which gives this kind of cheese its renown. To keep cheese so long is beyond the means of most farmers, and requires mercantile capital and management.

Previous to the war it was imported on the Atlantic side, but enhanced duty and rates of exchange drove it off the market, much to the chagrin of those cheese eaters who were partial to it. It is more suited for real food than any other kind of cheese we have become acquainted with in any part of the world, and used as much, and not merely as a spicy relish on the desert table, or bar-room counter. A man can *live* on it.

Imitation Limberger, or Square cheese, as imported or made in this country, must be consumed while ripe, or rather half ripe, and is not likely to become ever much used here, besides its strong smell being disagreeable to many.

The chief fault of American cheese is, its being too young and containing too little butter, rather losing than gaining in point of quality upon a short while, but these defects are not likely to be remedied as long as our farmers, entering the mercantile line, must try to take out of the milk what will turn quickest into money, say the butter, and save what costs money, *e. i.* the salt, labor, and storage, instead of merchants adding to the farmer's capital by taking hold of his produce at the very threshold of the dairy. The merchants can then bring on the collected milk of five farms, or whatever number it may be, the superior skill of regularly trained cheesmakers, who have as well as every other trade, to serve a regular apprenticeship, priding themselves in being that and nothing else, earning also wages which an individual small farmer could as ill afford, as the owners of a bay schooner could afford to their skipper a salary like those of the Great Republic, that measured originally 5,000 tons.

The merchant's cheese is made under professional and commercial superintendence, which the farmer is altogether debarred from, for the superintendent of the dairies in every firm must be a man who served from the pick up, and distinguished himself in every department, and is paid a salary which would perhaps outweigh the net profits of four or five farms put together.

THE Viceroy has ordered that one quarter of the land of Egypt be sown with cotton.

[Editorial Correspondence.]

Santa Clara Valley, Continued.

Gilroy—Dairies, Vineyards, Stock Raising, Etc.

After a ride of thirty miles over a very even grade of road, though excessively dusty, we enter the town of Gilroy—noted as the most extensive dairy region in the State, both for quality as well as quantity of product. A brief call at some of the principal dairies and stock farms, will give to the reader an idea of the business, and improvements in stock raising in this section.

In the south-end portion of the town is the dairy of Mr. John A. Perkins. He has five hundred head of dairy stock, four of which are pure blood Durhams; also a Durham bull "Mad Anthony," four years old, which he is using with his stock—the bull is owned by Mr. Jordan, of the Mission Dolores, by whom he was imported. There are six hundred acres for grazing. Mr. Perkins has been nine and a half years in the business, and sent the first products in the dairy line, from Gilroy to San Francisco—in 1853—which then commanded *nine bits per pound.* He now makes two hundred pounds of cheese per day. This is the largest dairy in the valley. Mr. P. has one thousand sheep in the mountains, crossed with French and Spanish Merino, which sheared above five thousand pounds of wool the present season.

South from here on the Monterey road, Massey Thomas has eighty head of dairy stock, and makes one hundred and forty pounds of cheese per day. He has twenty-five acres planted in tobacco, which was looking very well and bids fair for a large crop. In the stables we noticed the stallion "Yolo Chief, jr.," five years old, sired by Yolo Chief, by Bell Founder, dam a Morgan mare. Mr. Thomas has twenty head of brood mares, some fillies and other stock, and is devoting particular attention to this department.

Dr. B. Bryant, near town, is extensively engaged in sheep and wool raising—having nearly seven thousand sheep, mostly fine Merino, which are at present grazing in Tulare Valley. He has been engaged in the business since 1862, and has produced a fine quality of wool. The spring clip will amount to twenty thousand pounds. He is crossing with the best quality of Merino bucks, intending to raise wool exclusively.

Mr. W. R. Bane has a pleasant place near by, situated back from the main road. He has a small vineyard of Mission vines under cultivation, and an excellent farm well tilled.

Capt. W. Z. Angney, about four miles south from town, on the Mill road, has the best looking, as well as the largest vineyard, we saw in this section—comprising eight thousand vines, mostly foreign; French and German, and other varieties, with the exception of some three or four hundred Mission vines. About twelve hundred are now in bearing; the balance are young vines. The soil and location are very favorable for the cultivation of the vine, as their thrifty appearance shows. The quality of the white wine we tasted, made from the vineyard, possessed an excellent flavor and boquet. Some claret was also made, which, upon trial, was fully equal to any we have tasted, but like all California wines requires age to give it a proper body. Capt. Angney has on the ranch above five thousand sheep, one-half, and three-quarter breeds, and full bloods, which have been crossed with French Merino bucks. The clip of wool was about twenty-three thousand pounds. There are also some fifteen hundred sheep on the ranch belonging to D. M. Cochrane. Twelve acres have been planted with tobacco, which is thriving well. Capt. Angney intends to cure it on the place, for the manufacture of smoking and chewing tobacco.

Mrs. Ousley, on the Mill road, has one hundred and fifty head of dairy stock, and makes butter and cheese—principally butter the present season.

Messrs. Hanna Brothers have quite an extensive dairy ranch, about a mile from town. They milk seventy cows and make from one hundred and fifty to one hundred and eighty pounds of cheese per day. Nine hundred acres are under fence to grazing and farming. They had, at the time of my visit, seventy-five hundred pounds of cheese in their store rooms, waiting shipment across the mountains to Washoe. In a look over the premises, we were pleased to see the great care observed, as well as the general neatness and cleanliness in the different store rooms.

There are several other dairies and ranches in this section which want of time prevented our visiting, and we will therefore pass on our way to

Old Gilroy,

which is about two miles distant from New Gilroy, and the centre of a rich agricultural and dairy region. The crops in this section have naturally suffered from the dry weather, and the farmers have been patiently waiting for rain; but feed is not entirely dried up as in other places. Many of these farmers are on the "San Ysidro" Grant, or Gilroy League, of which we shall refer to hereafter. The gardens, orchards and vineyards were in their prime, and gave ample promise of abundant crops of fruit.

Wm. Furlong has an orchard of eleven hundred trees six years old—apples, pears, plums, almonds, gooseberries, etc. The trees were in splendid condition; especially the apples, some of which trees bore last season from three hundred to five hundred pounds each of fruit of the choicest varieties. The gooseberry thrives well and bears abundantly; from one immense bush we observed, there was gathered last season forty-seven pounds of berries. The Lawton blackberry also thrives well and bears profusely. A fine hedge of Osage orange borders a portion of the orchard, which is certainly a model one in this section, and will repay the care and attention bestowed upon it by its enterprising owner.

Mr. J. H. Bruen has a vineyard of six hundred foreign vines, and an orchard of five hundred bearing trees three years old. The soil is a gravelly loam, and the vine thrives well in this locality. Mr. B. keeps the main store in the town, which is the head-quarters of the farmers and others from the rural districts.

Near by is the dairy of Mr. Ellis. He makes about fifty pounds of cheese per day, milking twenty cows. About three acres are under fence to orchard, vineyard, and garden. The vines are from three to five years old, mostly trained on espaliers, which show a most prolific growth of fruit. He has also six hundred acres down to crops.

Mr. Asa Ferguson has one of the most beautiful places in the valley, combining the true requisites of the farm. In the

absence of the proprietor we were kindly received by his son. The ranch comprises five hundred and forty acres, down to crops, grazing, etc., including the orchard and vineyard. He has one hundred and fifty head of cattle, including the dairy stock, and others which are in the mountains grazing. We noticed a fine Durham Bull "Marcus," four years old, sired by "Washington," (Blacow's bull,) which he is using on his stock. The mansion and garden are very attractive, and the grounds laid out with much taste, showing the careful attention bestowed in every department. The dairy department has been leased to Mr. A. J. Myers, who is giving it his personal attention. He is making one hundred and fifty pounds of cheese per day, and some butter occasionally, which is of excellent quality. The dairy stock were looking well. In the stable we noticed "Young Diamede," six years old, sired by John Bull, dam a thoroughbred mare; he was fifteen and a half hands high, and weighed eleven hundred pounds. Mr. Myers showed us some fine specimens of Berkshire and Suffolk pigs, bred from pure stock, in which department he seems to be taking considerable pride.

Rev. J. K. Rule, has a finely laid out garden and orchard, of nine acres, in which are some five hundred Mission vines, and between five and six hundred bearing fruit trees. He has cultivated the sugar-beet successfully. An arbor two hundred yards long, is in process of construction for training hops, which he is now cultivating on the largest scale in this section of country, and which produces large crops.

Hiram Vangundy has one hundred and twenty head of best American dairy stock, and makes cheese exclusively—making two hundred and forty pounds per day, or about forty thousand during the season. Has been in the business since 1854.

We next called at the establishment of David Zuck, who has been on the place ten years. He makes from eighty-five to ninety pounds of cheese per day, the produce of some seventy head of milch cows. He has on the ranch about twenty-five head of horses, and three hundred head of hogs. Some of the choice dairy stock have been lost by sickness.

Mr. Jacob Doane has twelve hundred American sheep crossed with French Merino bucks, which are at present away in the mountains. The clip averaged from three to five pounds, and the crop amounted to about five thousand pounds. He is cultivating some tobacco for experiment. The soil is a gravelly loam with some adobe.

We next called at the dairy of Rodney Eschenburg, who has three hundred and fifty acres on the San Ysidro Grant, (Ortega league,) mostly devoted to farming and grazing. He has seventy head of American dairy stock, making one hundred and thirty pounds of cheese per day. There has been some trouble among the dairy stock by a disease called "black tongue," or a drooling at the mouth. A lump of fat salt pork, about the size of an ear of corn, placed in the mouth, has been found by Mr. E. to be a certain remedy.

About two miles east from here, on the Lake road, is the "Soap Ranch," on a portion of which Mr. Albert Wilson has located for the last six years. He has a flock of three or four hundred American sheep, crossed with French Merino. He is improving his sheep for wool purposes alone. He has given much attention to poultry breeding, having a large establishment and several hundred specimens. A disease has attacked the hens, which is in the form of a scale on the legs, from which they die; also, from a disease of the liver, for which he has used sulphur with some success. Can any of our readers suggest a remedy for the former?

Two miles farther, near the foot hills, is the ranch of Jas. Dunne, comprising five leagues. He has ten thousand sheep in the mountains, from Australian stock originally, which he is crossing with Spanish Merino. They are one-half and three-quarter breeds. The clip of wool amounted to forty thousand pounds. There are on the ranch fifteen hundred head of cattle and one hundred head of horses. A creek runs through the ranch, giving an ample supply of water for all purposes. Nine fields are fenced for stock and agricultural purposes, and a running stream of water in each field. Twenty acres will be planted in tobacco, which thrives well in this section. He has also a fine field of Alfalfa, for the use of the stock. The ranch is located near and extends to the "Pacheco Pass," and is known as the "San Philippi Ranch." The mansion is situated back from the road a quarter of a mile, the approach to which is through a serpentine avenue, shaded by noble forest trees. The drive from Old Gilroy is the most charming imaginable—the road, after the first two miles, winding around the foot-hills, along the borders of a beautiful lake, whose margin is covered with species of wild fowls, thence around the hills for some miles, a cool and refeshing ride, and as romantic and picturesque as can be desired or wished for.

We were unable to visit other dairies and stock ranches too remote, for our limited time, which we much regret, but hope at a future time to make a more extensive trip through this enterprising valley.

We regret to be informed that some trouble has lately arisen, regarding titles in this valley, which has caused some uneasiness to parties, viz:

The Ysidro Grant was owned by the Gilroy family, but when a sale was made, in the transfer between Gilroy and wife, the acknowledgment was taken before a Justice of the Peace, instead of a Notary Public. The defect, as the law calls it, was known long since, but was supposed to be of no importance. Some outside parties having discovered this error, purchased the remainder of this portion of the estate, for the sum of $500, we are told, and commenced suit against the present occupants, and, strange to say, recovered judgment in the District Court, and are trying to oust the present occupants and rightful owners. The land is the most valuable in the county, and of course an appeal will be made. It is looked upon as an outrage, and we hope that justice will be done to those who have built up homes, in which they have lived for years. It is certainly a hard case and would not be tolerated in some countries.

The branches of stock raising and the dairy business, are closely pursued and systematically carried on in this section; and it is well worthy of a visit, being the most extensive dairy region probably in the State. The amount of cheese made in this section alone, is not less than *two thousand pounds per day.*

The Exchange Hotel, the principal house in the place, is under the management of Messrs. Oldham & Roop, both well known and popular. Mr. Roop is from Philadelphia, where he was engaged in the same business; and Mr. Oldham is

brother of Mr. Oldham, of Oldham & Crowell, of San Francisco. An extensive stable and carriage house is connected with the house, under the supervision of Mr. Oldham, where visitors can find any accommodation and the best kind of teams for a drive into the country or out to the lake, which is a most charming ride. Gilroy is a pleasant little town and beautifully located, being thirty miles from San Jose, and twelve miles from San Juan, in the centre of a rich farming reigion, and well worthy a visit by those who desire the comforts of a quiet country life, fresh air, and plenty of the luxuries natural to a farming and dairy county.

San Juan—Monterey County—

Long known as the principal wool growing region of California, and containing a large area of grazing land, which is occupied by large flocks of sheep—away over hill and plain, which way you may turn, around, and all about you, you see and hear nothing talked about, but sheep and wool.

There are probably over one hundred parties engaged in the business in this county, but most of them at places too remote for observation at this time, being the dry season, and we will therefore confine ourselves to a mention of the few principal ranches we were fortunate enough to visit on our way around the county and over the mountains.

"San Justo" ranch is not only well known to all who have ever visited Monterey County, but indeed, we may say, of world-wide fame, as being owned jointly by Messrs. Flint, Bixby & Co. and Col. W. W. Hollister, the leading sheep and wool-growers, in the State. The ranch has lately been divided., Messrs. Flint, Bixby & Co. occupying the upper portion, and Col. Hollister, the lower portion, branching on the plains, towards the Santa Anna.

Flint, Bixby & Co. occupy thirteen thousand acres, pasturing twenty thousand sheep, which are mostly seven-eighth and full blood Spanish Merino, from the best stock which could be procured in Vermont, and imported by them. So much has been said relative to these immense flocks of sheep and their superior quality of wool, that we can but repeat the assertion, that we doubt if a finer lot of sheep, bred to such perfection, were ever exhibited in any country; and certainly bear abundant testimony to the care and skill, in proper and judicious crossing. They have twelve fine imported bucks, besides others by purchase, and eight hundred fine blood bucks of their own raising, for which there is more demand than they can supply. The renowned buck, "Old Abe," sheared *thirty-four pounds;* the other imported bucks averaged twenty-three pounds each. They are breeding, as I have before stated, from pure Spanish Merino stock, which they consider, next to the Southdown, the hardiest sheep living. The two year olds average one hundred and twenty-five pounds in weight, and will produce more wool and of heavier weight than any flock in the State. The sheep herd in large flocks to better advantage than any other breed, and are considered better than others for wool and mutton. The mutton is sweeter and more juicy, and the butchers prefer it.

Messrs. F. B. & Co. advocate the *plunge bath* for the sheep, as the most effective way, for the removal of scab or any cutaneous disease. Their baths are on quite an extensive plan, and afford considerable amusement to one who has never witnessed the operation. They use a warm bath, composed of soda ash, sulphur, arsenic, and tobacco, in proper proportion, and make one thousand gallons at a time. The bath is warm, and the sheep are driven in, one after the other, with rapidity, which gives them a thorough soaking, from which they enter a corral, slightly inclined, to allow them to dry off. By this process three thousand sheep can be bathed in half a day effectually.

The ranch is finely located, with excellent pasturage and abundant water privileges from springs in the valley. The wool barns are all well arranged for shearing, and packing wool to the best advantage. Messrs. F. & B. have another ranch in San Luis Obispo County, on which are pastured from twelve thousand to thirteen thousand more sheep. The Spring clip of wool from both ranches will amount to 110,000 pounds, and of a superior quality, which will find a good market and a most remunerative price at this time.

Col. Hollister—whose *rancho* is about five miles farther down the valley, occupies twenty-three thousand acres, of plain and rolling hills—being the balance of the "San Justo" *rancho.* There are belonging to this ranch twenty-five thousand sheep of three-fourths and seven-eighths blood, bred from Spanish Merino bucks, but owing to the unusual dry season and lack of feed, all but about six thousand are away in other portions of the State. The wool barn is quite extensive, being one hundred feet long by forty-eight feet wide and sixteen feet high, divided off by partitions, to keep the sheep separate while shearing. There is also a large chamber for packing and storing wool. In the basement, there is room for one thousand sheep, enough for one day's shearing, in case of rain. The floor is raised for shearing, being open for the sheep to stand on that the offal may pass off. The barn is built on the side hill, with sliding gates leading to the different corrals. The shearing over, the sheep were being washed in baths of a solution of corrosive sublimate, which is considered by Col. H. to be the best and most efficacious remedy for removing the scab.

Col. Hollister has just erected a large and commodious mansion, one of the finest in the county, and is laying out the grounds in a tasty manner. The barn is commodious, with a capacity for one hundred tons of hay. There are buildings for the men, stables and other out-buildings, in keeping with the place, and necessary for so large and extensive a business as that pursued by Col. Hollister, who has been on the ranch and engaged in wool-growing since 1854. He has also another ranch of six leagues in San Luis Obispo, owned jointly with Mr. Wallace. The Spring clip of wool amounted to 87,000 pounds—which has been sold at a high figure—being of fine quality.

Goodrich & Walker have a sheep ranch about two miles from Col. Hollister's, pasturing about two thousand sheep, one-half and three-quarter Merino. The clip of wool averaged from four to five pounds, amounting to about eight thousand pounds of wool. The land is held under a school warrant, and comprises one thousand acres of excellent grazing land.

"Santa Anna" Rancho—two miles farther east is owned and occupied by Messrs. Searle & Wynn, well known in the wool business. They have a flock of seven thousand five hundred sheep and three thousand lambs—comprising one-half and three-quarter blood French and Spanish Merino. The rancho comprises five leagues of land, or twenty-two

thousand acres. The sheep were in good condition, notwithstanding the dry season, and the wool of excellent quality and staple. The Spring clip amounted to thirty-five thousand pounds. The ranch comprises plain and rolling hills, running up to the range of mountains. Opposite the ranch, in the range of mountains, can be seen one of the points of the triangulation of the survey of the State, of which Mount Diablo is another. It is about three thousand feet above the level of the sea, and can be seen towering up, even a hundred miles out at sea. Searle & Wynn also have on the "Rancho Aromas," six miles west of San Juan, eight thousand sheep, one-half, three-quarter, and seven-eighths Merino. The feed here is plenty, and of excellent quality. The range comprises three and a-half leagues; about eighteen hundred acres are under tillage, and prospect of good crops. This flock of sheep will shear about thirty-five thousand pounds. We were much gratified at finding our friends, S. &. W., at home.

Natividad—Salinas Plains, Etc.

On our way to this valley, after crossing the mountains from San Juan, we stopped a few minutes to refresh the inner man, as well as our beast, at our friend Johnson's, who keeps the Ten Mile House, Natividad P.O., where he has been established the past twelve years. He is Postmaster, Express Agent, etc., and is the best posted man on sheep and wool matters in the country. Mr. Johnson will act as our agent for the STOCK JOURNAL in that section. There are at present two hundred acres under cultivation in the valley, and all that is wanted is a communication with a market, which in the event of the railroad being extended along the valley, as is expected, it would open up immense tracts of this land, and render it invaluable for agricultural purposes, equal to Santa Clara or San José valleys.

In future times, however, windmills will be erected for the purpose of pumping up water from the lower levels of the valley. The water varies somewhat in different portions of the plains. The winds from the north blow in fresh every day, and in the latter portion, sufficient to drive all the mills required, water being abundant; the lower level being about eighteen feet above a bed of quicksand, which teems with water. If the county seat were established on the plains, as is confidently expected, a few years would make a change in this section that could hardly be realized.

We called upon Mr. E. S. Wooley, of the Natividad Ranch, who has nearly fourteen hundred acres to grazing and farming, on which he pastures two thousand sheep, half breeds, Merino. His Spring clip amounted to three thousand five hundred pounds wool. The range for the sheep is on the plains, running up to the foot-hills, on which the grazing is excellent and plenty. Mr. Wooley has been in the business some three years, and intends improving his sheep to the best advantage to secure a fine quality of wool. He has also a few milch cows and horses. For experiment, he has put out about two thousand plants of tobacco, which he considers will thrive well in this section.

On the whole trip the weather was charming, though warm, and the drive over the mountains, down the ravines, through the cañons, and over the plains, exhilirating in the extreme, revealing new beauties of scenery wild and picturesque indeed, over which the eye wandered with delight.

Leaving the mountains and foot-hills behind us, we emerged into a wide valley—level as far as the eye could reach almost; covered on all sides with stock, grazing—which is known as the "Salinas Plains," over which we rode for about five miles, and just as the sun was sinking behind the western hills, found ourselves at the Sausal Rancho, a most picturesque looking spot, near the "Gabellan," where we were received by its owner, Eugene Sherwood, Esq.

Sausal Rancho.

The sheep on this ranch are mostly Saxon Merino. The original stock were imported from Australia four years ago, consisting of pure and thoroughbred sheep, bred from acclimated stock, and consequently peculiarly adapted to California, which climate is in many respects identical with that of Australia. A portion of the ewes were Australian Saxons, of the latest imported descriptions. The bucks were all bred from selected Saxon stock exported to Australia from Germany. The speciality of these pure, thorough bred Saxons, consists of an exceedingly compact shape, similar to that of the *Negretti* breed, shortness of limb, great width of brisket, a full and even coat of wool; the staple is long, strong and fine, and of nearly equal quality on all parts of the animal. The Australian Saxon ewes have a less compact and weighty body, and are not so fully wooled; the staple is of medium length, but of great fineness. The Spring clip of 1862, of a thousand select ewes of this flock averaged 8 pounds and 12 ounces each—some of the ewes giving from fourteen to fifteen pounds. The whole number of bucks are one thousand, of both classes, and of all ages. The majority of the rams are of the Saxony breed, commonly known as the *Negretti*. The wool is of a very fine quality, and great length of staple, and as even as any buck's can show in the country. Some of the bucks will be exhibited at the fairs of the Bay District, and also the State Agricultural Society the coming season. These sheep much resemble the Southdown, in point of hardiness. In the year 1862, these sheep were on the San Lorenzo ranch, forty miles south of the Sausal Rancho, (also owned by Mr. Sherwood), and were exposed to a snow-storm for two days and two nights, at a time when the ground was covered with snow (a case not before known for forty years), and the sheep suffered no inconvenience whatever, showing thus their thorough hardiness. I mention this to remove an impression that these sheep are *tender* or *delicate*. The pure thoroughbred rams are of the same variety of character as the *Gold Medalist*, of the British Royal Agricultural Society of the past year, an account of which may be seen in the *London Illustrated News*, July 12th, 1862.

I noticed a fine lot of bucks in the field, among which was "Beauregard," a noble looking buck, of handsome style, and appearance; (though I have a *poor regard* for the name he bears.) He is two years old, thorough bred Saxon—wool of long fine staple, even all over his eyes and head, and two folds on his head and neck, with no coarse wool even below the hock and knee. At my request he was weighed and measured in my presence: weight, 135 pounds; measure 2 feet 3 inches high; 4 feet 2 in length from crown to tail; girth, 4 feet. I understand that he will be exhibited at the District and State fairs the coming season. There are eighteen thousand sheep on both ranches, of all ages and quality—principally rams and ewes—and one flock of wethers.

The Sausal Rancho embraces ten thousand two hundred and twenty acres, situated in the center of the Salinas Valley, fifteen miles south from San Juan. The public highway skirts a portion of the property. The house is situated on the edge of the table land, through which the *Gabellan* stream runs, which by-sects the ranch, and commands a fine prospect of the Gabellan Mountains and the Salinas Valley. While below, and facing the eastern front of the house, the *Vega*, or valley of the *Gabellan*, spreads out, of nearly perrenial verdure. The bottom land immediately in front of the house, is inclosed for an orchard, containing some three hundred choice fruit trees. To the south, within the home inclosure, is a pleasant wood, of say five hundred acres, comprising willow, alder, and alinso trees, and wild currants and blackberries in abundance—form a most delightful promonade and cool retreat in a summer day, while the waving of the branches, and the warble of birds discourse sweet music within the quiet abode. The southeastern extremity of the wood is fringed by a lagoon, or lake of water, of which the Gabellan is the tributary, and which is crowded with wild fowl, and stocked with fish, (perch and trout.)

In the vicinity of the house is a noble old "aliso" tree, (or butternut), of very picturesque and imposing appearance, which measured at the base thirty-six feet; it has probably occupied the same position for centuries before the white man's step was known on the soil. Many improvements are going on. Paddocks are being arranged on the ranch, hedged with willows, for the convenience of parties needing thoroughbred stock, to examine the same for purchase. Mr. Sherwood has been in the valley since 1859, and on the present ranch two years. The arrangements for shearing are on the most extensive and convenient scale, a building being erected for the purpose. Some twenty-five men were engaged in shearing, which lasted about two weeks—thirty-five men in all, were employed on the ranch during the shearing season. The clip of wool is estimated at fifty thousand pounds, of a fine quality.

The Salinas Plains extend a distance of nearly sixty miles, uninterrupted by any hill or impediment; it has suffered very little from inundation, enjoys an unsurpassed climate at all seasons of the year, and is destined to become the most important agricultural section in the State, on account of its protection from floods. It produces small grain, Indian corn, and maize, and crops grow abundantly. This valley must become the leading one for cereals in the State, when energy and perseverance shall have developed its unequalled resources.

Watsonville.

This town has improved wonderfully, during the past year. Many new buildings and stores have been erected, streets laid out, and at present, I am told, there are one hundred licensed business houses of various kinds in the town, of which over thirty are devoted to merchandise and supplies for the whole country around, including the great Pajaro Valley to San Juan and the Salinas, who depend upon this place for their supplies. With the impetus given to it from the facilities of ocean navigation, and the steamer which plies between here and San Francisco, together with the prospect of increased communication and trade by the railroad to San Jose, it bids fair to become a commercial town of some importance in the future. Notwithstanding the dry weather, the Pajaro Valley, with its extensive grain fields, looks prolific indeed, and no cause for complaint at present exists as to any possible injury to the grain crops. The late rains have of course had their bad effect, but the crops will be good compared to other portions of the State, and the average yield abundant.

Tobacco is being cultivated in many portions of the Valley, and seems to grow readily. Many of the farmers are devoting what spare land they may have to the culture of this important plant, and the prospect looks favorable for fine crops. We hope to hear from all parties, personally, who are engaged in its culture, their success.

The stables of Watsonville can boast of their horse stock, this being the headquarters of the county. At Mr. Barney's stables, are standing "Abdallah"—bay stallion—nine years old, sired by Hambletonian—dam by imported Bellfounder; sixteen hands high, black mane and tail, very heavily quartered, fine neck and shoulder, and in fact, a perfect piece of horse flesh. He took the first premium at the Bay District Fair, and is a sure foal getter. He is owned by Wm. Paul, Esq., of Mayfield.

"*Uncle Sam*"—dark bay—Black Hawk and Morgan stock, sired by Easton's *David Hill;* dam, a Morgan mare, of fine points and great strength. He is five years old and weighs 1,160 pounds.

Barney's stables are well known to everybody, like their owner, who is *au fait* in turf and stock matters. He has a couple of colts, sired by "Taylor" and "Stockbridge Chief," which look very promising.

At the stables of Bell & Dubois, were "*Shakspeare, jr,.*" steel grey stallion, six years old, sired by Old Shakspeare, under the care of J. C. Nudd, agent.

"*Brown Hawk*"—dark brown stallion—sired by Leviathan, of Missouri; out of a Morgan mare; sired by Vermont Black Hawk; he is six years old, bred in Sonoma, and owned by Wm. Phœnix, of San Luis.

While in Watsonville, we called on Mr. Godchaux (of Godchaux & Blackburn, San Luis, prominent wool-growers.) They have, I am informed, about 14,000 head of sheep, three or four thousand of which are pure blood Saxony, (young sheep), the balance are American, crossed with Australian Saxony bucks. The Spring clip of wool was from forty-five to fifty thousand pounds. The fine sheep averaged eight pounds to the fleece. Mr. Godchaux is one of the oldest residents of Watsonville, and occupied the first store ever built in that town.

Mr. G. F. Pennebaker, of Watsonville, has a flock of good sheep, pasturing on the eastern slope of the Pacheco Mountains, near the "Atiquelite" Creek. They are American stock, crossed with French Merino, and latterly with Spanish Merino bucks, from Flint, Bixby & Co.'s flock. His clip was about 3,000 pounds.

The Exchange Hotel is kept by T. D. Alexander, located near the plaza, on the main street, and the most comfortable stopping place in the town. The house is large and well furnished with all the modern conveniences and luxuries of a city hotel. A large and extensive stable is connected with the house, containing the best kind of horse stock—in the selection of which we believe Mr. A. prides himself.

The *Pajaro Times* is the title of a new paper started in Watsonville, by Messrs. Kearney, McQuillan & Duchow.

They are good Union men, each having been connected with the press in this State, and as they have started a good Union paper, which we learn, is already doing well, we heartily wish them success.

Santa Cruz.

Well may it be said, that here indeed, in the "Valley of the Holy Cross," one can find those three luxuries, fine climate, beautiful scenery, and health, and in these, we believe Santa Cruz cannot be surpassed. Away from the busy haunts of the Bay City; away from the heated and dry inland towns, the admirer of nature, from the mountain cliffs to the ocean beach, can find attractions enough in this delightful neighborhood, for Nature has indeed scattered her bounties and blessings with a most liberal hand. The climate is too well known, to describe it—warm and genial, enervating and refreshing, entirely free from the fogs and winds that characterize San Francisco, at this season of the year. Salt water bathing, abundant opportunities for fishing, delightful drives on the sandy beach, or up among the glens and gorges of the mountains, where from their hights the most magnificent scenery bursts upon the view—on one side, deep ravines, and gorges, below which the creek pursues its silent way over its pebbly bed—while above and around, the rolling hills, and beyond, the vast valleys and grain fields—on the other, the wide ocean, the roar of whose waves is grand indeed, as they come rolling in upon its smooth hard beach. A mention of a few of the prominent places, may serve of some interst and show the improvement going on in Santa Cruz.

Judge Blackburn has a beautiful place, on the road to the beach. He has eighty acres to orchard and crop. In the orchard are 2,000 fruit trees, from six to seven years old, principally apples and pears—with other varieties of fruits. It is the model orchard of Santa Cruz, and the trees are bountifully loaded with fruit, and betrayed the most careful attention. Near the house is a beautiful grove of maple, and sufficiently shaded to make it a lovely rural retreat, while around are hares and quail in abundance. The San Lorenzo Creek formerly ran through the low land, of above five acres, in which is found a layer of abellone and cohog shells, which acts as an advantage to the land and crops. Some tobacco has been planted, the present season, which looks promising. Judge Blackburn has been on the place since 1845, and is one of the old residents of the town.

The Potrero, "San Pedro Reysledo."

The widow of M. Rene, has a small but excelent vineyard, on the above named ranch, which is located on the slope or hill-side, enjoying the warm rays of the sun. There are above 5,000 Mission vines, six year old, producing heavy crops. The soil is a clayey loam, and the vines have required no irrigation since they were planted. A wine was made resembling a fine claret, which will make an excellent table wine.

The Paper Mill is located about two miles from town, on the road up the mountain, towards the Powder Mills. It was located in 1860, and came into the hands of the present owners in 1862. They have only one set of machinery, for making straw paper exclusively, using about two tons of wheat and oat straw per day, also four barrels of lime and four cords of wood, for bleaching and drying the paper. The number of men employed when running full time, is twenty-four, and they manufacture from 130 to 150 reams per day. Having a large surplus of power, they have, I understand, ordered another set of machinery, for making printing paper, which will double the amount of business. We are under obligations to Mr. W. Felker, Superintendent of the mill, for attentions, showing us through the mill and grounds.

The California Powder Works, are under process of erection about half of a mile from here, under the Superintendence of Mr. Olds. The machinery was built in Hartford, Conn., and is now being received as fast as it can be shipped. A further notice of these works, is reserved for another time.

The Lime Kilns, owned by Davis and Jordan, are about two miles from town. The property comprises 8,000 acres of woodland, limestone, etc., on what is known as the Rincoon and Rifucia ranches. There are three lime kilns going night and day; part are perpetual kilns, with a capacity of 1,200 barrels each; also a patent kiln, making about 80 barrels per day. They make about 50,000 barrels per year. Everything is made on the place. They have a saw mill and coopershop for making staves and barrels. From eighty to one hundred men are employed on the place during the Summer months at the kilns and on the ranches. The warehouses are extensive, and are located, near the landing, on the cliffs. They are two in number, and are sufficiently capacious for the large business carried on. The lime is shipped to San Francisco in sailing vessels. The pier at the landing is constructed of solid materials, and is 1,000 feet long. The business has been established since 1853.

The business of tanning is carried on in this place, to a greater extent than many imagine, and surprises all who visit this flourishing town. There are four tanneries in this vicinity; the most extensive and oldest establishment, is that of Messrs. Kirby, Jones & Co., near the old mission. The buildings include the lime-house, beam-house, drying lofts, and bark mill. There are seven liming vats, nineteen *handlers* and *pools*. and forty-four *lay-aways*, being a total of sixty double vats. The charge for each, technically called a pack, is 35 hides, taking over 2,000 hides to stock the yard. The capacity of the yard is 1,200 sides per month. The stock turned out, consists of sole, harness, skirting, welt, bridle, rigging, belting, and alum leather.

The first year there was tanned a total of 10,767 sides of the foregoing, weighing 189,900 *pounds*, and valued at $60,000. There are more machinery and appliances in a large tannery than we were aware of. Motion to drive the rolling mill, for rolling sole leather, bark mill, and fulling stocks, is given by a 30-horse power engine, having a fine brick chimney, 60 feet high, which gives such a powerful draught, that the waste tan is used for fuel. The Ooze is likewise pumped by the same power, into a large tank, and from large leaches, from which it is distributed by hose, to the different vats as needed. Connected with the tannery, there is a manufactory for moroccos, which is an entirely distinct branch of business. Roans and sheep moroccos are here manufactured. The skins, deprived of their wool, are sent to San Francisco in casks, and instead of being sewed up and filled with the tanning liquor, they are put in large casks, lying on their bilge, and the skins kept in motion by paddle wheels, driven by steam. Steam pipes are also used to heat up the dye vats, and for numerous other

purposes, where hot water is required. This manufacture is only in its infancy, but the quality is so superior, that it is fast driving the Eastern article out of the market. The skins are used for lining and tanning boots. Messrs. Kirby & Boston represent the establishment here, (who showed us over the extensive premises), and Mr. Jones represents the house in Washington Street, San Francisco. Much more might be said upon this subject, but *time and space* will not allow of it till another time, when we propose to allude also to other establishments in Santa Cruz.

There are several stables, who turn out as good and fast teams as can be found in our bay cities. We noticed that Mr. Chas. H. Dustan, of Sacramento, has rented the Eagle Livery Stable—refitted and stocked the establishment with horses and carriages of the best description, for the accommodation of all who may wish to make fishing or hunting excursions, or rides to the beach. Mr. Dustan is well known and experienced in the business, and we hope our friends will not forget to give him a call.

Mark McGeary's Stables are located near the hill, leading to the tannery, and he is not behind any of the others, in attending to the wants of his numerous customers who wish to indulge in the luxury of a saddle or carriage ride to the country, or the beach.

And we must not forget our friend Farnham, mine host of the "Exchange." Though sometimes crowded for room in the busy season, he nevertheless manages to make everybody comfortable and contented, with all the comforts of a good table, and good beds. True, the hotel accommodations are somewhat limited in Santa Cruz, for the large number of visitors this season has created a desire for a more extensive hotel, which for the benefit of the place, should be done; but those who do come can find no fault that they are not well treated or cared for at the "Exchange," or made to go away dissatisfied.

We were glad to meet our friend, C. W. Williams, (who, by the way, is our agent for the STOCK JOURNAL) in Santa Cruz, where he has been established for the past nine years, and still pursues the book and periodical business in all its branches. Visitors at Santa Cruz can have all the papers of the day left at their hotel or residence, by giving notice to Mr. Williams.

We made a call upon W. W. Broughton, Esq., editor of the *Sentinel*, and were pleased to learn of the success of his paper. The courtesies rendered us and our JOURNAL, on our first visit to Santa Cruz, will be remembered with pleasure.

We have thus briefly mentioned some of the prominent and proposed improvements, and attraction of Santa Cruz. To those pleasure and health hunters, we say, if you want fishing and hunting—salt water bathing—a morning or evening ride to the beach, to gather the shells and sea weed, and watch the breakers as they dash in upon the rocks, scattering the silvery foam and spray into the air; a visit to the giant trees, the natural bridge and cave; a romantic ride or walk among those glens and gorges of the mountains, the flower-clad hills and valleys, with blooming shrubs, and the beautiful manzanito; to enjoy scenery, embracing land and water, forests of gigantic redwoods, and valleys of waving grain; in fact, throw off the dull cares of business, and enjoy for a time, free unrestrained happiness, and healthful pleasures—go to Santa Cruz, and our word for it, you will be well repaid in health and strength, and learn to believe more than ever, how grand *is Nature*, and how sublime her works.

Sheep Husbandry, and its Importance to the Loyal States.

It is asserted by parties, well informed upon the subject, that no country adapted to "Sheep Husbandry" has ever entered into this important branch of agriculture without becoming wealthy. In England—where the annual rent of the land is fully equal to the cost of the freehold in Illinois or Michigan—the business is carried on to a larger extent and with greater profit than in any other part of the world. Sixty millions of sheep are clipped in the United Kingdom. The fleeces average about 5 lb. after being washed, and it is not an uncommon thing for a quarter of mutton to weigh 60 lb. after being dressed. Many of the fleeces weigh full 8 lb. It is a common impression that the English people are more fond of beef than of any other animal food. "John Bull" and "roast beef" are by many considered synonymous terms, but nevertheless mutton has for the last half century displaced beef on the Englishman's table. A farmer in England who keeps no sheep upon his land is regarded as a poor manager, and behind the age. Sheep manure is valued at 40c. per head. Instead of importing guano from a distance of twelve thousand miles, at a cost of from sixty to seventy dollars a ton, the manure of sheep is obtained at comparatively no expense, and is equally distributed over the land. From the discussion of of the effect of the cotton famine upon England, one would be led to suppose that the manufacture of cotton goods was the most important interest in that country, but "Sheep Husbandry" and woolen manufactures very far surpass it. For many years great attention has been paid to the growth of sheep best adapted to the production of worsted. It is a singular fact that very few of the most intelligent merchants in our large cities know precisely what constitutes the difference between wool and worsted. Worsted is the long fibers of wool separated from the short by combing. Until within a very short period, this process of separation was done by hand, at very great expense, but within the past few years, machinery has been constructed which performs the work so satisfactorily that a revolution in the cost of worsted has been effected both in England and on the Continent. So important is the growth of sheep best adapted to the production of worsted considered in England, that up to within the last twenty-five years it was a penal offense to export a "Leicester" or "Cotswold" sheep from any part of the Kingdom. By this means England has monopolized the production of coarse worsteds, and to-day supplies the world with these fabrics. The imports of worsted and cotton-and-worsted fabrics into the United States this year will amount to about $17,367,672. The nature of our climate makes worsted goods more desirable than any other, and we have been for many years the best customers that England has for this class of goods. The derangement of industry in the cotton growing regions, occasioned by the war, must necessarily produce a greater demand for worsted and woolen fabrics for years to

come, and the tariff and high rates for exchange will make it profitable hereafter to produce the raw material and the manufactured goods in our own country. This subject has attracted the attention of capitalists, and we are informed that a company has already been organized, in Massachusetts, with a large capital, for the purpose of producing worsteds. It is confidently believed that the enterprise will prove a success, and that worsted goods will hereafter be produced here to compete successfully with England or any other part of the world. All that is required to make it certain is—*that the sheep shall be grown.*

The soil and climate of all our Northwestern States are admirably adapted to "Sheep Husbandry," and the farmers of that section could not possibly turn their attention to a more profitable branch of agriculture. The sheep best adapted to the production of worsted are the Leicester and Cotswold breeds, and can be obtained in Canada to any extent, and at reasonable prices. The carcasses are large and the fleece of long staple, which makes the breeds more valuable both for the clip and mutton. In Illinois, and other parts of the West, where corn is raised in such quantities that it is at times used for fuel, the Leicester and Cotswold sheep would pay a large profit to the grower, if raised and fed for the mutton alone, leaving out of the account the value of the fleece. Corn is a most excellent food for fatting sheep, and there is no country on earth that can compete with the West in its production. By looking over the market reports of the three cities of Boston, Philadelphia and New York, it will be found that the average price of first-class mutton is higher at all times than the average price of first-class beef, but the largest profit in the growing of sheep in our country is realized on the clip. In Canada, where the Leicester and Cotswold are the favorite breeds, the average weight of the fleece is full six pounds after being washed. It is estimated in all sheep-growing countries that the increase of the flock will fully offset the cost of keeping, so that the clip is clear profit. In February we predicted that the wool clip of the West would bring seventy cents a pound. At that time gold was selling at a premium of 72 per cent., which made legal tender notes worth a fraction over 58 cents to the dollar. At present gold is at a premium of about fifty per cent. which makes the legal tender note worth 66⅔ cents to the dollar. It will thus be seen that the currency has depreciated about fourteen per cent. since February, and it will therefore buy 14 per cent. more of all commodities, wool included. If nothing should occur between now and the time the wool clip is brought into market to change the value of the legal tender note, we think the best clips will range from 60 to 65c. a pound. At this price it will pay the grower a very handsome profit and there is no question as to there being plenty of buyers for every pound in the country. It should be recollected that the depreciation of the currency has produced a decline in the price of all kinds of merchandise as well as wool, so that the wool grower will be enabled to purchas, with sixty cents a pound for his wool, as much of other commodities as he could have purchased in February at 70 cents a pound. For years past the quantity of wool manufactured in the United States has averaged full 125 millions of pounds.* Of this quantity not more than one-half has been grown here. While we have been exporting grain and provisions to an immense amount, we have imported wool from Australia, the Cape of Good Hope, South America, China, Russia, India, and, in short, from every other quarter of the Globe, and are doing so to-day, though it is an indisputable fact that no country on earth is better adapted to "Sheep Husbandry" than the Northwest. Should the agriculturists neglect to grow a sufficient quantity of wheat and corn to supply our home demand, it would be regarded as most suprising evidence of a lack of enterprise, and yet our natural facilities of soil and climate are no better for producing corn and wheat than they are for the growing of sheep. In Australia and the Cape of Good Hope, where "Sheep Husbandry" is carried on extensively and at a large profit, the climate is not as favorable, the soil is barren, and there is no market for mutton, while in the West the soil is rich, the climate dry and cool, and our large cities furnish a ready market for mutton at higher prices than in London and Paris. For years past the people of the West have seen the wool buyer running through the country eager to contract for wool "on sheep's back." How much more eager will they be in future, when the consumption of wool is increased fifty per cent. as it is likely to be? Although the population of our country is small as compared with older ones, yet it should be remembered that we consume more than five times as many goods, in proportion to our numbers, as any of the countries of the old world. This is owing to the fact that the wages of labor are higher and the cost of living cheaper. It is confidently believed that the 30 millions of people in the United States, before the breaking out of the rebellion, consumed more goods than 150 millons of the population of any other part of the world. In support of this assertion it may be mentioned, that in Russia a strong able-bodied man receives 5 cupicks (equal to four cents of our money) for a day's labor pounding stone upon the public road. In Prussia laborers receive 5 silver "groschen" (equal to 12½ cents of our money) for a day's labor. In Ireland laboring men receive about £15 sterling ($75 of our money) for one year's services. In Poland a night watchman receives equal to about 25 cents of our money for guarding the streets from 6 o'clock in the evening to 6 in the morning. In Germany the women of the middling or well-to-do classes rarely ever have more than two silk dresses in a life time, and the laboring classes none. Silks are worn only by the nobility and wealthy classes. A teamster in that country with a pair of horses and wagon, receives for a day's work of himself and team one "thaler" a day (or

* Appleton's Cyclopedia makes a grand mistake in its calculation for 1860. It says "the imports were 4,450,658 lb." The compiler overlooked the fact that this amount was dollars instead of pounds, and represented only wool at and under 20c. per lb.

about 72 cents of our money) and pays his own expenses. A gentleman who traveled in Germany a few years since, relates that on one occasion he had his attention called to two hearty stout girls, who, he was told, had the care of eighty cows, and their pay was ten thalers a year, equal to seven dollars and twenty cents of our money. Neither of them had ever had on either a shoe or a bonnet, yet they were pictures of health and apparently contented. These few facts are believed to be fair illustrations of the laboring classes of Europe, and will serve to show the inability of the laboring people to indulge in dress to anything like the extent that the American people are in the habit of doing, and they ought furthermore to be convincing proof of the blessings we enjoy as compared with any other people on the face of the earth. Our information from the West is to the effect that much more attention has been paid, within the past year, to "Sheep Husbandry," and that the clip of the present year will be larger than usual, but we are inclined to believe that our Western farmers do not fully realize the immense increase of the demand which will be created for the great staple by the cutting short of the cotton supply.

At the breaking out of the rebellion there was in the hands of manufacturers, commission houses, importers, jobbers, and retailers, a very large stock of woolen goods, the accumulation of years. The stock of cotten goods, was also large, and to work off the surplus of both has taken two years. It is believed that at present the stocks are limited both of cottons and woolens, as compared with the requirements of thirty millions of people, and that cotton having reached a point nearly as high as wool, the demand for the latter must necessarily be greatly increased. If we did not produce in the United States more than half the wool used by manufacturers before the commencement of the war, and when cotton was abundant at ten cents a pound, is it not reasonable to suppose that we could double the production profitably now, when cotton is at 65 cents a pound and when there is sound reason for believing that it will not for years to come, whether the war is prolonged or not, rule at less than twenty-five cents a pound. We have at present, in the loyal states, twenty-five million of sheep, and we believe that this number could be doubled without producing a sufficient quantity of wool and mutton to supply the demand for the next five years. There is no mystery about "Sheep Husbandry." All that is required to condnct the busisiness, successfully, is the exercise of plain common sense, which dictates that all domestic animals (and sheep in particular,) to thrive well, require to be well fed, to have plenty of room, and to be well protected from storms.

In February we advised the Western farmers to buy every sheep that their means would admit of, and to sell none, nor kill any, except the aged. We now renew that advice, with the addition that they import the Leicester and Cotswold breeds, from Canada, as largely as possible. It is our intention to continue the discussion of this subject, and we shall feel obliged if such journals as have a large circulation in the West, and approve our views, will take sufficient interest to copy them, and thus aid in stimulating the Western farmers to a more "vigorous prosecution" of "Sheep Husbandry."—*U. S. Economist and Dry Goods Reporter.*

The Warm Springs—near the *Mission San Jose*, have for years been a favorite resort by comfort seekers and invalids. We were pleased to observe in a brief call, on our way way around the bay, that the establishment had changed hands, being now under the able management of Messrs. Lee, Redding & Co. Mr. Redding attends to the office business; Dr. Lee is Resident Physician; Dr. Van Caneghan, Visiting Physician. There are four buildings, forming a square, with a large open court yard, and fountain in the center, and surrounded by beautiful gardens. They have taken the property on a lease of ten years, and intend to make visitors comfortable without their being subjected to extortionate charges. This is the first season and is already thronged with guests who come to enjoy the delightful climate, balmy atmosphere and invigorating baths. The baths are connected with the main building, and the *Springs* are but a few rods from the house, where visitors can take their morning dram from Nature's own fountain. Mrs. Hangary, formerly hostess of the Mansion House, San Jose, presides over the household, a sufficient guarantee that lady visitors will receive every attention. In a future number further mention will be made of this locality, and the vineyards and gardens about the neighborhood, in our notes of a "*A Trip Around the Bay*," and in the meantime refer our readers to a recapitulation in the advertisement, which is not exaggerated.

The Press.

The *Santa Cruz Sentinel*, edited by W. W. Broughton, Esq., has entered upon its eighth year, with a most liberal patronage, and we gladly welcome it among our exchanges, from one of the most highly famed portions of the State, whose interests it advocates and sustains so well.

The *Tuolumne Courier* has also entered upon its seventh volume, under the same management and editorial charge as originally commenced in 1857. It is improved in size, and ably edited, and is, we learn, receiving a generous support from the community where it circulates.

California Agriculturist—Wm. Thompson, editor and publisher. We are glad to see that so excellent a weekly agricultural journal is sustained and patronized by the farming community, as we learn it is. There is no reason why an agricultural journal, devoted distinctly to the cause it represents, free from puffery and nonsense, should be allowed to languish for support, and we heartily wish the *Agriculturist*, with its able and practical editor, *God speed* in the noble cause.

The Leader Stove introduced in this market by B. C. Austin, is ahead of anything heretofore brought before the public; it has all the Mac Gregor patents, which are a self-ventilating double top—gas burner, and cold air ventilation—it has not its equal in this market. *

MENLO PARK VILLA ASSOCIATION possesses the choicest sites for suburban villas and homes to be found in the State, comprising about 840 acres, in San Mateo County, adjacent to the residence of Capt. Geo. C. Johnson, possessing all the natural beauties and advantages of country life, to the fullest extent. Salubrious climate—rich soil—evergreen trees, neighborhood already settled with magnificent residences and country seats, and the facilities of speedy communication with the city by railroad in about an hour, gives this beautiful spot a prominence not to be disputed, with all the advantages for modern homes.

WE ask the attention of our readers to the article on *Swiss Cheese*, being the second of our series for the Dairy Department, by John T. Zorn, Esq., author of the article on Alpine Cattle, in our June number.

NOTICE TO STOCKTON SUBSCRIBERS.—Our subscribers in Stockton, who may have subscribed with A. LeBours, and have failed to receive their paper, will please notify the publisher, and their papers shall be sent, without any interruption. A. LeBours having *left* without either accounting to this office for names or moneys collected by him, obliges us to give this public notice of his *dishonesty*.

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The Menlo Park Villa Association,

COMPOSED OF

TWO HUNDRED AND FIFTY SHARES,

Each Share giving about 3 1-2 Acres,

Have some shares yet for sale.

No better opportunity was ever offered to secure a Home in the Country at a LOW FIGURE.

For Particulars, apply to

LEANDER RANSOM,
N. E. cor. Montgomery and California Streets,
Or to A. G. RANDALL,
542 Sacramento Street, below Montgomery.

HORSES! HORSES!

REED & NOYES'

Train has Arrived

From across the Plains, and are for sale at OLDHAM & CROWELL'S Stables, Market Street. The Stock comprises

Draft, Carriage and Trotting Horses.

Please give us a call. REED & NOYES.

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NOW IN ACTIVE OPERATION AND READY TO receive orders. All kinds of

Green and Black Glass Blown to Order.

CARBOYS, PICKLE BOTTLES,
MINERAL WATER, WINES,
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Particular attention paid to PRIVATE MOULDS. All Patterns made at short notice, and Lettered as desired.
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Office, 514 Washington street.

JOHN TAYLOR, Agent.

N. B.—Samples can be seen at the office.

FASHION LIVERY STABLE,

On SUTTER, bet. Montgomery and Sansome Streets.

BUCKLEY & JONES, Proprietors.

THIS NEW AND Magnificently finished Stable will be under the express charge of Mr JOHN M. DANIELS, whose reputation has already been heralded over this State for the last ten years, as a careful handler of Horses, and whose judgement cannot be questioned The proprietors have spared no pains or expense to erect and furnish their Stable. They will not claim, as it may be called an idle boast, to have the finest ventilated and most convenient Livery Stable in the city, but will invite inspection and abide the verdict.

Will have constantly on hand Carriages and Buggies. Carriage and Saddle Horses, and hope by strict attention to business to merit a share of livery businesss.

BAGS!

GRAIN, WOOL, FLOUR AND ORE BAGS.

LEWIS & DETRICK

CLAY STREET BAG FACTORY,

No. 113 Clay Street, - - - - - SAN FRANCISCO.

The Best Location for Residences

IN THE

CITY OF SAN JOSE.

THE WELL KNOWN GROUNDS OF THE SAN JOSE NURSERY have been laid out in STREETS and LOTS, being the continuation of those of the City.

TWENTY LOTS ARE ALREADY SOLD,

And five houses have been built and families living in them, and other houses are now building, which shows that the place has been appreciated, and in fact **there is none better** in every respect.

I intend to sell TEN LOTS MORE, CHEAP, and then raise the price. Terms and size of the lots *to* suit.

TITLE WARRANTED PERFECT.

Inquire on the premises of

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Office of the City and County Coroner.

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SOLE DEALERS IN

SONOMA NATIVE WINES.

Depot under the Pacific Fruit Market.

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COMMERCIAL STREET,

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BREAKFASTS, DINNERS AND SUPPERS furnished in the best style.

Wedding Parties supplied in any part of the city.

The house has been refitted without and within, and the Saloon and Private Rooms are convenient and comfortable.

GAMBA HOUSE

— AND —

RESTAURANT,

Corner of Leidesdorff and Sacramento Sts., (up stairs.)

PRIVATE ROOMS, BREAKFASTS AND DINNERS furnished in the best style. Gamba is is well known in the culinary department, and solicits the patronage of his friends.

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SOLD ON COMMISSION,

AND MONEY ADVANCED THEREON, BY

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RAMS.

PURE THOROUGHBRED SAXON AND AUSTRALIAN MERINO RAMS, for sale by

EUGENE SHERWOOD,
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TO WOOL GROWERS.

25 CASES TOBACCO,

Expressly for Sheep Wash,

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ALSO, FIRST PREMIUM

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OPPOSITE WHAT CHEER HOUSE.

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LIVERY & SALE STABLE,

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Horses taken on Livery, and Horses and Carriages to Let at the Lowest Rates.

ARTIFICIAL BONE FILLING

FOR DECAYED TEETH,

Put in while Soft, without Pressure or Pain.

ACHING teeth or mere shells can be filled with it, and restored to health and usefulness by the discoverer, DR. PEARSON, (late Pearson & Crane,) No. 653 (Old No. 187) CLAY STREET, a few doors below Kearny. Vulcanized Rubber Work done if desired, and satisfaction guaranteed, or gold substituted. All Dental operations will receive Dr. Pearson's personal attention.

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Horses, Carriages, Buggies, Etc. to let. Every attention paid to Horses on Livery. Carriages always ready at the Occidental Hotel and at the Stable.

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EMPLOYMENT OFFICE,

— ALSO, HAVE A —

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CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SAN FRANCISCO: AUGUST, 1863. NUMBER 8.

For the Wine, Wool, and Stock Journal.

WINE CELLARS—NO. 3.

BY ARPAD HARASZTHY.

Wine cellars or wine vaults, are parts of buildings, cellars, or tunnels, used for storing away wine when it is made, and while it is attaining its maturity.

Wine cellars should have their entrance from the north, or as near that point as possible. There are many able writers who affirm that there is no material difference where the entry is from, and among them, Count Odart, who says that any point between northeast and north, or northwest and north, is good, and he does not even insist on these points, but adds, that "in the Jura they have their cellars turned in every direction of the needle, and their wine is none the worse." Although we prefer the north whenever we can get it, yet, for all that, we do not condemn a cellar that is turned in any other direction. With proper care, and double doors, a cellar may always be made almost, if not entirely, as favorable as one that is turned to the north. The best wine cellar is the one whose temperature is the most constant, and the least subject to variations. Heavy and common wines do keep in wine cellars whose temperature varies, and for them it is often necessary that their temperature be high; but light and delicate wines need above all an even temperature and a cool cellar, without this they not only are kept from maturing, but actually degenerate.

Besides coolness, a wine cellar must be neither too dry, nor too wet, nor too well lighted, but obscure and even; in our opinion, it must be completely dark. This latter opinion is in direct opposition to those emitted by some very learned writers, such as Chaptal, Lenoir, Mr. Ladrey, etc. With all respect to such names, we still have to differ from them. We are essentially practical in all our ideas concerning wine matters, because all we know of that subject was taught us in a school of practice, and by men who were wholly practical, and it is from them that our opinion comes. *Keep your wine in the dark.* Your barrels may spoil; buy new ones. It is not the barrel you wish to preserve, but your wine that you wish to make good, to make noble. Preserve your barrel as much as you please, but never at the risk of the quality of your wine.

A wine remaining any length of time in a cellar that is wet, or even very humid, is decedent, it loses all its life, its vivacity. Besides this grave inconvenience, the hoops in a humid cellar rot at a fearful rate. If the cellar is too dry, there is too much evaporation of the wine, for in spite of all the efforts to keep your bungs tight, there is always evaporation. The wine evaporates through the pores of the wood. Always aim for a just medium of humidity and dryness. There ought not to be a current of air in your cellars; a still air is the most favorable, if it is void of all odor or taste. If not void of these, there should be some manner of ventilation, either in the shape of air holes, opposite openings, doors, etc. Although we recommend a still air, never make your cellars so that you cannot have a current of air

whenever you think proper. It often happens that there is created, by unknown causes, a foulness of air, and then, if you cannot renew your atmosphere by a current of air, you are forced to do so by burning powder and using other methods, which are not only injurious to the wine but are dangerous to the operator. Keep your cellars far from all unclean places, from stables, from manure heaps, from woodpiles, and all other places where the matter is in continual or intermittent fermentation. The gases escaping with their putrid odor, are not only liable to communicate their odors to the wines in casks, but, says Lenoir, "even to the wine in bottles if they are not perfectly well corked." Never use any part whatever of a stable for a wine cellar; your wines, if not taken care of with the utmost minuteness, will be sure to acquire foul tastes in any such vicinity.

With the numerous other requirements a wine cellar must be removed from all noise, such as the passage of heavy wagons, the hammering of cooper shops, blacksmith shops, etc.; the noise produced by such and other causes, produce greater or less vibrations, which, communicating themselves to the wines, cause the lighter part of the sediment to rise and not only injures the transparence and quality of the wine, but even starts the acetous fermentation. All vegetables, and especially all fruit, must be kept away from your cellars, their presence is of great danger to the wines.

The best temperature for a wine cellar is about fifty-six degrees, and not varying, above or below, one degree. This we, of course, mean for ordinary table wines, both white and red. Heavy wines, such as Lisbon, Alicante, Malaga, Port, Sherry, and others, need a warm place, or they never will *make themselves*. The great amount of sugar they contain never would convert itself into alcohol if it had not a sufficient degree of heat. The best temperature for such and like wines, is between sixty-five and seventy degrees.

Now that we know what is needed, in general, to make or constitute a good cellar, let us examine how these cellars are made.

We say, any place, not coming in opposition to the above mentioned conditions, is good for a wine cellar, be it dug out of the solid rock, out of clay, be it built of stone, marble, brick, or adobe, all is good as long as the conditions above laid down are strictly kept.

Wine cellars are built in many different ways, and of many different substances. The most common of all, is that part of our houses comprised between the four walls of its foundation and under the surface of the ground. With us, in California, this part of our houses was not generally intended for wine cellars, but in Europe, and especially on the Rhine, in the old Feudal Castles, immense cellars were made between the foundation walls, and arched by masterly mason work, for the sole purpose of keeping wine. It was there that the wine lay for ages and attained all the perfection that nature and time could give it.

In Champagne they dig down forty, fifty, and one hundred feet below the surface of the ground, into the solid chalk beds, and then branch off streets of tunnels for miles in every direction, where they work their millions and millions of bottles.

In Medoc they use the ground floor of stone buildings for cellars. They cannot dig down, as water is too near to the surface. In Texas and marshy countries they form a kind of frame building, and thatch it all over with straw. Straw, as everyone knows, is a non-conductor of heat. The best cellars, in our opinion, are undoubtedly those built out of the solid rock; they are much the cooler, and their atmosphere seems to us purer than those walled up and arched. But in giving our preference to this kind of cellar, we take it for granted that the rock is hard, and exposes the wine to no danger by risk of crumbling or caving in, otherwise we prefer the arched cellars. In Champagne, where the rock is all chalk, the cellars are all dug out with picks and the average cost for a cellar fifteen feet wide, and twelve feet high, is forty francs (eight dollars) a running meter or yard. Where the rock is harder, the work with picks becomes too expensive, and blasting is resorted to. It requires a considerable degree of skill to blast thus under ground and not injure the work already done. Arching cellars by mason work, is very expensive and dangerous, when there is any depth of soil above the cellar. It is carried on in the same manner as the arches of bridges, and like these, is composed either of brick or stone. When the cellar is to have its arch only touch the surface, the ground is cut away until its form is exactly the one the inside is to resemble, then the mason work is just made to encompass this form, and when completed *then* the dirt is dug out from under the mason work.

Be the cellars as they may, they ought always to have a dry and hard floor, if the ground is not good pave your floor with stone, bricks, or bring in sand

to raise it at least three inches. This latter, in time becomes perfectly hard.

A cellar may be as high as you like it, and as wide as you like it, above ten feet high and ten feet wide, and no cellar should be less than that in width and hight. Though you may make your cellars as high as you like, we would advise you not to go higher than fifteen feet nor wider than twenty-five. Those are the dimensions we would choose if we were to build an arched cellar or one out of favorable rock. It is our opinion that a very large cellar is more subject to the variations of the outside temperature than those which are less spacious.

The arches of cellars may be made, at will, either in the form of an ellipsis, of a circle, or of a gothic circle. The gothic form we believe is the stoutest, and we believe too, is the most economical.

The cellars should always be below the press-house, which disposition permits of using the hose instead of the bucket for transportation into the former of the newly pressed juice. A thousand inconveniences arise from the use of the bucket in the carrying of wine, all of which we will discuss when the proper time comes.

Vertigo or Giddiness in Sheep.

M. Reynal considers vertigo a disease of the nervous system occasioned by a worm—the *cœnaries cerebratis*, (located in the brain) belonging to the *hydatid* family.

Lambs, from the age of two months, or from four to twelve months, become the subjects of it; and it rarely effects them after the age of eighteen months. the disease is apt to end in *atrophy*—wasting of the brain and spinal marrow.

In the rank of principal causes he places, first—"Hereditariness." Secondly—"Intercourse between the sexes too prematurely, especially the employment of a ram for *tupping*, not more than six or eight months old, as is the practice in some parts of the country."

To Guard Against the Disease.—"Put out of the breeding fold both males and females that have shown any signs of the disorder, and not breed from the ewes under the age of thirty months, nor from rams until they have attained their second year."

And if there be any binding conclusions to be drawn from the influence of a first foundation or necessary ones, we ought to put away from the flock females who, though in apparent health themselves, have once produced diseased stock.—*Translation from the French, by W. Percivall.*

SHEEP HUSBANDRY--No. 2.

It is becoming more and more apparent to thrifty farmers and capitalists throughout the North that this important branch of agriculture will hereafter become exceedingly profitable to all who engage in it. In Dutchess (our native county) where wool growing was carried on with great profit from 1825 to 1840 and then abandoned for dairies and cattle raising, we learn that the farmers are stocking their farms with sheep, and returning rapidly to sheep husbandry. In addition to the demand for wool there is a steady increase of demand for mutton, which renders the business doubly safe and profitable. The taste for mutton is a cultivated one, and is rapidly growing in our country. We well remember when a boy that we would as soon have thought of eating a piece of roast dog as roast mutton. There was a disagreeable flavor, which was exceedingly distasteful to us; but now we think we hsve reached the extreme of good living when we can afford a dinner of "roast lamb, mint sauce, asparagus and green peas." We presume our experience is that of a large portion of the community, for the butchers tell us they find it difficult to supply the demand for prime mutton, giving this as a reason why they charged us 20c. *a pound.* Mutton is by far cheaper than beef at the same price. The choice cuts of beef constitute a very small proportion of the carcass, and the proportion of coarse meat and bone in a cut of beef is far greater than in mutton.

The philosophers who declare that "Cotton is King" simply give utterance to a self-evident absurdity. It is less than a century since the first yard of cotton goods was produced in England. That cotton is the cheapest fiber that nature ever produced, capable of being woven into fabric, cannot be doubted; but that the world has existed without it, and can do so again, is equally true. It has always been considered inferior to wool and linen, and nothing but its cheapness has brought it into universal use. To say that any article of merchandise is "cotton warp" is to stamp it with the brand of inferiority.

We find nothing in the world's history to warrant the conclusion that there has ever been any difficulty in producing, with wool, flax and silk, every fabric required for comfort or convenience, in the highest state of civilization and refinement. In the parable of the rich man we read that he was "clothed in "purple and fine linen." This implies a high degree of skill and taste in the production of fabrics at this

early period. In all the territory north of "Mason and Dixon's Line" woolen goods for men and boys' wear, and worsted goods for women's, are necessary for comfort full nine months out of the twelve, and are vastly more healthy. Light weight woolens for Summer wear are now in general use in the whole North, and fancy flannel for shirts is rapidly superseding cotton. These shirts are more comfortable the greater portion of the year, require washing less frequently, and are on the whole more economical. For women's wear, delaines, alpaccas, merinos, coburgs, etc., are far better adapted to Northern climates than cotton, and will hereafter be produced at home. The war found the manufacturing interests throughout the world based upon a steady supply of cotton, and the cutting short of the supply produced a temporary derangement, but the business will readily adapt itself to the new order of things, and the war will prove in the end to be of immense advantage to the North by producing a greatly increased demand for wool and flax. We find that commission houses that have heretofore received consignments of woolen goods from Europe, are already cultivating the acquaintance, and soliciting consignments from American manufacturers, finding that their friends abroad can no longer consign goods to this market and compete with the home production.

We have heretofore been largely dependent upon England for blankets and other heavy woolens. The protection given by that government to wool growing has enabled them to produce these goods cheaper than it could be done here; but all this is now changed, and to-day we find those who have heretofore been importers of this class of goods buying up heavy woolens for the reason that they can no longer be imported with profit. For years past we have been supplied with broad cloths from Europe, but now it is believed that our own manufacturers will produce these goods successfully in competition with the famous productions of "Biolly" and "Simonis." We never read a threat of burning cotton that the reflection does not cross our minds, "what an increased demand that will produce for wool and worsteds," and we advise our Western farmers whenever they see reliable accounts of any considerable quantity of cotton having been burned *to buy more sheep.*

In most parts of the Northwest the majority of the farmers have not capital to purchase sheep in such numbers as they could make profitable. The prices of produce in the West for several years preceding the commencement of the war were so low as to leave the grower scarcely sufficient to pay the cost of production. In addition to this, in many parts of the West the people have been immensely swindled by the failure of Wild Cat banks scattered throughout the different States. Illinois alone must have suffered to the extent of from five to ten millions of dollars. The influences we have named have prevented the farmers from accumulating property as rapidly as they otherwise would have done, and, as we have said, they are not able to purchase as many sheep as they could profitably take care of. This difficulty can easily be remedied by capitalists furnishing the means to purchase the sheep and put them upon shares with the farmer. There never was so much idle capital in the country as at present, and it could not be more profitably or usefully employed than in the direction we have named. Let capitalists, both West and East, give this subject consideration. Sheep husbandry is as sure to be profitable in the North hereafter as that the sun is sure to rise and set; and the less cotton that is produced, the more that is burned, and the longer the war is prolonged, the more money will it put into the pockets of wool-growers.

The lowest prices that wool has reached in the Eastern markets for the last 36 years was in 1849, when fine wool was sold at 33c., medium at 30, and coarse at 23. At that time sheep were sold in Ohio at one dollar and a half a head. The growers that year received in Ohio for medium wool 25c. a pound. Now, supposing the theory to be correct that the increase of the flock will pay the keeping, it will be observed that the profit at this *lowest price in 36 years was 50 per cent.* on the value of the sheep. We learn that shorn sheep can be bought at present in Ohio at $2 50. It will therefore be seen that the clip next year at 40c. per lb. would still pay 50 per cent. on the investment at present prices of sheep.

Into what channel can capitalists put their money that will be more likely to pay a large profit than in sheep husbandry.—*U. S. Economist.*

CHARLES COVILLAUD planted, about four years ago, 40,000 fruit trees and 100,000 vines, near Marysville, but the great flood killed all save 10,000 trees and 25,000 vines. He will make 10,000 gallons of wine this year. He sells his wine and brandy to Virginia, where he gets $1 per gallon for the former, and $4 for the latter.

CUBA TOBACCO.

Directions for Cultivation and Management.

CONDENSED CORRESPONDENCE.

From the time the plants are set out, the earth around them should occasionally be stirred both with a hoe and the hand. At first, hoe flat, but as soon as the leaves assume a growing disposition, begin gradually to draw a slight bed towards the plants, which must be closely examined, even while in the nursery, to destroy the worms that feed upon them, which cut the stalks and gnaw the leaves when first set out. They resemble the grub-worm, and are to be found near the injured plant under ground. Others, which come from the eggs deposited on the plant by a butterfly, and feed on the leaf, grow to a very large size, and look very ugly, and are commonly called the "tobacco worm." There is also a small worm which attacks the bud of the plant, and which is sure destruction to its further growth; and some again, though less destructive, are to be seen within the two coats of the leaf, feeding as it were on its juices alone. The worming should be strictly attended to every morning and evening, until the plants are pretty well grown, after which every other day is sufficient. The most proper persons for worming are either boys or girls, of from ten to fourteen years of age. They should be made to come to the tobacco ground early in the morning, and be led by inducements (such as giving a trifling reward to those who will bring the most worms) to worm it properly. Grown persons would find it rather too tedious to stoop to examine the under part of every leaf and seek the worm under ground; nor would they be so much alive to the value of a spoonful of sugar, or other light reward. Besides, where the former would make this search a matter of profit and pleasure, it would prove to the latter only a tedious and irksome occupation. Here we will observe, that it is for similar reasons that the culture of the Cuba tobacco-plant more properly belongs to a white population; for there are few plants requiring more attention and tender treatment than it does. Indeed, it will present a sorry appearance, unless the eye of its legitimate proprietor is constantly watching over it.

When the plants have acquired from twelve to fourteen good leaves, and are about knee high, it may be well to begin to top them, by nipping off the bud with the aid of the finger and thumb nail, taking care not to destroy the small leaves immediately near the bud;* for if the land is good, and the the season favorable, those very small top leaves will, in a short time, be nearly as large, and ripen quite as soon as the lower ones, whereby two or four more leaves may be saved; thus obtaining from sixteen to eighteen leaves in the place of twelve or fourteen, which is the general average. As the topping of the tobacco-plant is all-essential in order to promote the growth, and to equalize the ripening of the leaves, we would observe that this operation should, at all events, commence the instant that the bud of the plant shows a disposition to go to seed, and be immediately followed by removing the suckers, which it will now put out at every leaf; indeed, the suckers should be removed from the plant as often as they appear. The tobacco-plant ought never to be cut before it comes to full maturity, which is known by the leaves becoming mottled, coarse, and of a thick texture, and gummy to the touch, at which time the end of the leaf, by being doubled, will break short, which it will not do to the same extent when green. It ought not to be cut in wet weather, when the leaves lose their natural gummy substance, so necessary to be preserved.

About this period, the cultivator is apt to be rendered anxious by the fear of allowing the plants to remain in the field longer than necessary, until experience removes these apprehensions. He should be on his guard, however, not to destroy the quality of his tobacco by cutting it too soon. When the cutting is commenced, there should be procured a quantity of forked stakes, set upright, with a pole, or rider, sitting on each fork, ready to support the tobacco and keep it from the ground. The plant is then cut obliquely even with the surface of the ground, and the person thus employed should strike the lower end of the stalk two or three times with the blunt side of his knife, so as to cause as much of the sand or soil to fall from it as possible; then tying two stalks together, they are gently placed across the riders, or poles, prepared to receive them. In this state, they are allowed to remain in the sun or open air, until the leaves have somewhat wilted, whereby they will not be liable to the injury which they would otherwise receive if they came suddenly in contact with other bodies when fresh cut. Then, place as many plants on each pole, or rider, as may

*Washing the hands after this in water is necessary, as the acrid juices of the plants, otherwise, would soon produce a soreness of the fingers.

be conveniently carried, and take them into the drying-house, where the tobacco is strung off upon the frames prepared for it, leaving a small space between the two plants, that air may circulate freely among them, and promote their drying. As the drying advances, the stalks are brought closer to each other, so as to make room for those which yet remain to be housed.

In drying the tobacco, all damp air should be excluded; nor should the drying of it be precipitated by the admission of high drying winds. This process is to be promoted in the most moderate manner, except in the rainy season, when the sooner the drying is effected the better; for it is a plant easily affected by the changes of the weather, after the drying commences. It is liable to mildew in damp weather; that is, when the leaf changes from its original color to a pale-yellow cast, and from this, by parts, to an even brown. When the middle stem is perfectly dry, it can be taken down, and the leaves stripped from the stalk and put in bulk to sweat, that is, to make tobacco of them; for before this process, when a concentration of its better qualities takes place, the leaves are always liable to be affected by the weather, and can not well be considered as being anything else than common dry leaves, partaking of the nature of tobacco, but not actually tobacco. The leaves are to be stripped from the stalks in damp or cloudy weather, when they are more easily handled, and the separation of the different qualities rendered also more easy. The good leaves are at this time kept by themselves, for "wrappers," or "caps," and the most defective ones for "fillings."

When the tobacco is put in bulk, the stems of the leaves should all be kept in one direction, to facilitate the tying of them in hanks; afterwards making the bulk two or three feet high and of proportionate circumference. To guard against the leaves becoming overheated, and to equalize the fermentation or sweating, after the first twenty-four hours, place the outside leaves in the center, and those of the center to the outside of the bulk. By doing this once or twice, and taking care to cover the bulk either with sheets or blankets so as to exclude all air from it, and leaving it in this state for about forty days, it acquires an odor strong enough to produce sneezing and the other qualities of cured tobacco. The process of curing may then be considered as completed. Then take some of the most injured leaves, but of the best quality, and in proportion to the quantity of tobacco made, and place them in clear water; there let them remain until they rot, which they will do in about eight days; next break open your bulks, spread the tobacco with the stems in one direction, and dampen them with this water in a gentle manner, in order that it may not soak through the leaf; for in this case, the leaf would rot.* Then tie them in hanks of from twenty-five to thirty leaves. This being done, spread the hanks in the tobacco-house for about twelve hours to air, in order that the dampness may be removed, and afterwards pack them in casks or barrels, and head them tight, until you wish to manufacture them. The object of dampening the tobacco with this water is to give it elasticity, to promote its burning free, to increase its fragrance, to give it an aromatic smell, and to keep it soft. This is the great secret of curing tobacco for cigars, properly, and for which we are indebted to the people of Cuba, who certainly understand the mode of curing this kind of tobacco better than any other. It is to them a source of great wealth, and may be made equally so to us. We can have here three cuttings from the original plant; the last cutting will be of rather weak quality, but which, nevertheless, will be agreeable to those who confine their smoking to weak tobacco.

In "ratooning" the plant, only one sprout ought to be allowed to grow, and this from those most deeply rooted; all other sprouts should be destroyed.

The houses necessary for the curing of tobacco ought to be roomy, with a passage-way running through the center, from one extremity of the building to the other, and pierced on both sides with a sufficient number of doors and windows to make them perfectly airy.

In addition to what we have said respecting the mode of cultivating and treating the tobacco-plant, we have further to state, that the plant once allowed to be checked in its growth, never again recovers it. That in promoting the drying of the leaf, fire should not be resorted to, because the smoke would impart to it a flavor which would injure that of the tobacco itself.

In order to obtain vigorous plants, the seed ought to be procured from the original stalk, and not from the "ratoons," by allowing some of them to go to seed for that express purpose. In Cuba, the seed is most generally saved from the ratoon plants, but we should consider that its climate and soil are probably more favorable to the production of this plant than ours, and, consequently, we ought to confide in the best seed, which can be had from the original stalks.

*A sponge is used in Cuba for this delicate operation.

CASTRATING ANIMALS.

"And now,
Make no delay to geld the males
To number, mark, and dock their tails."

DRYDEN.

Every farmer ought to know how to perform the operation of castrating any male animal which he raises, without being compelled to depend on itinerant interlopers, who go through the country endeavoring to hoodwink every one who has a male animal to be emasculated, by boring them with a score of notions connected with castration, which they themselves know to be many times unmitigated falsehoods.

When the Creator formed the beasts of the field, male and female, his infinite mind foresaw the importance of gelding, and made provision for it; and therefore there is nothing unnatural in the operation, and it does not injure an animal to be deprived of a portion of his sexual organs at any age when he is healthy and in good condition, providing the operation is performed in a skillful and workmanlike manner.

But listen to every blarney, and every would-be veterinarian, who like to induce farmers to pay them extortious prices for castrating colts and bulls, and they will tell you that the business requires not only *surgical* skill, but they will try to induce you to believe—and multitudes do believe every word of it—that they "*have a substance to put on*, which prevents their taking cold, and swelling up, and dying." Most illustratrious and pedantic truths! Thousands of farmers have paid dollar after dollar of their laborious earnings to these miserable wrecks of humanity, who travel about for a few days, and pick up dollars enough to keep them in idleness for months, and then laugh in their sleeve to think how adroitly they circumvented so many honest, hard-working farmers, and got their dollars.

THE EFFECTS OF CASTRATING AND THE OBJECT TO BE ATTAINED BY IT.

Castrating males of most kinds of animals is usually succeeded by imbecility and effeminacy; and by it the *form* of an animal as he grows up is usually very much altered from what it would have been had he not been castrated. The effects attending castration are so various in their character, and there are so many good objects to be attained, and bad ones to be avoided by it, *in its effects*, that it is very important that farmers should have a better understanding of a subject so highly important, and which so greatly affects their interest, for or against.

Were a lad deprived of his organs of virility, instead of growing to useful manhood, with an athletic form and a constitution possessing great powers of endurance, having a noble mind and a deep-toned voice, he would be a beardless, effeminate, and whimpering dotard, having a puerile and piping voice, like a delicate female.

Let the male whelp of a lioness be emasculated when quite young, and instead of growing up the formidable king of the beasts of the forests, at whose terrific roar all his subjects tremble, he would be beardless and maneless, and as effeminate as she that bore him.

So with some kinds of dogs, if they be castrated as soon as their testicles are to be found, they will grow up an idle, corpulent coward, fit only to *bark* and drive a churn power. Shorn of their courage and fortitude, and their canine sagacity and activity, a small pugnacious cur will make a large dog run for dear life.

Such are some of the effects on the canine species. Now some of the good objects to be attained by emasculating a dog are these: If a dog is too fierce and savage, and is not inclined to give a stranger a lawful share of the highway, let him be castrated. This will usually modify his fierceness and ugliness, and make him a more desirable dog. If a dog is given to roaming, thrust him head foremost into a barrel, and remove his roaming propensity, and he will remain at home.

Castrating has a great influence not only on the *disposition* of the animal, but in developing certain parts and *points* of animals. Let us examine this subject in its more *practical* applications.

THE PHYSICAL EFFECTS OF CASTRATING COLTS.

The question is very often asked, and especially by *young* farmers, "At what age should colts be castrated in order to make the best horses?" This will depend entirely on certain circumstances and conditions. But many men who are accustomed to go about the country, seeking animals to castrate, will answer this question to suit their pecuniary interests, rather than to answer it with reference to the interests of the proprietors of the animals to be castrated. And, many farmers will say it is just as well to emasculate a colt when he is a week old, as to wait until he is one, two, or three years old.

But this is not so, exceps in certain instances. In some instances it would be very wrong, while in some others it would be very right. It is very important

to know what is *right* and what is *wrong* on this point.

Let us keep the leading idea in mind, which has been brought out in a preceding paragraph, that allowing a bull or a colt to go *ungelt*, tends to develop and enlarge his *fore* parts, while castrating at an early age tends to developing his *hind* parts. There is no uncertainty about the correctness of this statement. Now for its practical application in improving the form and symmetry of colts.

I have my mind on a class of mares, which are heavy and narrow forward, and light behind, and which will always breed like themselves—their colts will be heavy before and light behind. Now, the sooner such colts are castrated the more desirable will be the form and symmetry of the horse, when he is four or five years of age. The longer castration is delayed, the greater will be the disproportion between his forward and hindmost parts.

On the contrary, there is another class of mares with heavy hind parts, and fore parts of fair proportion—but not too light—which will almost always breed colts much more like their sire than their dam, which colts will, many times, be very plump and square behind, when young, and rather too light forward. Should such colts be castrated when very young, they would be very liable to be too light and narrow forward, to be of good proportion for their hinder parts. Such colts should not be castrated until they are from one to three years of age. It is very important to keep an eye on the development of the form of the animal. No man can tell without seeing the colt, how long it would be best to allow him to go ungelt. They will make tougher and stronger animals to allow them to go ungelt until they are three or four years old; and if their forward parts do not develop faster than their hind parts do, they will make better horses not to castrate them until three or four years of age. But, as soon as the neck begins to thicken and the chest to deepen, and the animal is as good forward as he is behind, if he is one or two years of age, he should be castrated. Delaying this for one or two months will impair his beautiful form and symmetry.

It is a very common occurrence to see good geldings with square and beautiful forms behind, but too light forward to be of good proportion. Such a horse would have been more beautiful, more valuable, and better every way, had he been allowed to go ungelt one or two years longer, in order to determine when is the right time and when is the wrong time to castrate a colt, in order to secure any of the objects which have been alluded to.

Colts should never be castrated when they are in a low condition, or recovering from sickness; and it is not good policy to castrate them when they are spring poor. It is far better to defer it until they have improved in condition, even though it is delayed until autumn or until they are strong and healthy.

It is contended by many men—and it is usually correct—that the older a colt or stallion is before he is castrated, the slower he will be in his movements or gait. This is so with bulls and steers, and it holds goods with colts and horses. Steers are quicker on foot than they would have been had they not been castrated; and castration when young, usually makes colts more agile and quicker on foot than they would have been were they ungelt.

EFFECTS OF CASTRATION ON THE DISPOSITION.

Stallions are usually fearless of harm, even when there is danger on every side. For this reason officers, and especially generals in the army, prefer them to geldings, as they are ready to dash forward, undaunted, where the missiles of death are flying thick and fast on every side. Every castration tends to render colts more timorsome and shy, and afraid of the rustling of every leaf, than if they were ungelt; and it sometimes renders them very "spunky," obstinate, and fretful. I have never known a kicking stallion after he has been broke to the harness; but kicking geldings may be found wherever colts are castrated when they are young.

When the sire and the dam of a colt possess much spirit and are "high strung," and require an extra amount of nice care in driving them in order to manage them, if their colts are castrated when very young, they possess many times more ugliness than most men know how to manage; and are often so full of dancing and prancing that they are very undesirable for the ordinary purposes of agriculture; and if their sire or dam is at all disposed to use their heels whenever anything comes near them, we need not be disappointed if they give everything—whiffletrees, traces, and everything else, due notice that they can use their heels about as well as a mule. Early castration exerts far more influence on the disposition of a colt than most people are accustomed to think of. By delaying that operation for a year or two, the disposition of the horse will be very different—more tractable—than if castrated when very young.—*Cultivator and Country Gentleman.*

Cross-Breeding Between Improved Blood and Common Cattle.

We find in the *Country Gentleman* the following views in relation to the crossing between improved blood and common cattle, for dairy and beef purposes:

Mr. Coleman, a very intelligent writer on agricultural subjects, and if we are not mistaken, the head manager of the extensive and highly practical farm operations at Woburn Abbey—contributes an article on the subject of Cross-Breeding to a recent number of the Journal of the Royal Agricultural Society, of the truth of which American experience affords illustrations quite as ample as those he adduces from the farms of England. He gives it as his unqualified opinion that in the selection of beasts to fatten, crosses may be invariably taken to the best advantage—that they "will best pay the breeder, and be most sought for by the purchaser who intends to fatten."

So much is this a recognized fact, that in Scotland the polled Galloways, as well as the Ayrshires, West Highland, and other breeds, are now crossed with the Short-Horns to such degree "that the pure breeds are rarely to be met with, except at the shows of our Agricultural Societies." In the west of England a Hereford cross is very common; and there, and throughout the dairying counties, "many of the small farmers who keep two or three cows manage to send them to the pure bred bull of a wealthier neighbor," and it is conclusively proved that "a few pounds laid out on a good bull is an act of strict economy."

In his own experience, Mr. Coleman has mainly tested a cross of the Hereford upon Norfolk cows: "these half-breeds," he says, "far exceed my most sanguine expectations; * * at our annual sale of fat stock, held here every Christmas, I find if I have a crossed ox it invariably makes £2 to £3 more than the pure bred ones; and the reason is, that the butchers tell me they weigh so much better, are more fleshy, and give their customers greater satisfaction, from the fact of the fat being better mixed with the lean. I have had cross-bred steers, three years old, making from £30 to £40 pounds each, their dams being small Ayrshire cows, and the sire a pure Hereford bull."

As Mr. Coleman has thus no prejudice from his own interest, or otherwise, in favor of the Short-Horns, we may receive his opinions as to the results of a cross from this breed, with great confidence, and we may add that the statement he makes is most fully borne out in this country. He says:

"The majority of the cross-breed cattle we meet now-a-days, partake more of the character of the Short-Horn than anything else, so that to this breed belongs the credit of having done most towards supplying food for the millions. No matter what sort or amalgamation of sorts the cow may be, a cross with a pure Short-Horn bull rarely fails to make an improvement in size, quality, and fattening properties, if not in the milking powers of the produce."

In conclusion, Mr. Coleman thinks that as between pure animals of two improved breeds, the first cross is an improvement, while the result of further crossings is likely to prove inferior to either of the pure breeds. And as to the general stock of the country which "cannot be said to belong to any pure breed," he urges strongly that their owners "cannot do better than cross them with a bull of pure breed," particularly "where a farmer is not in a position to keep high-priced stock, either from want of means or of proper shelter for them."

Linseed-Tea for Sick Horses.

Linseed-tea is not only a valuable *restorative*, for sick horses, but it is exceedingly useful in cases of inflamation of the membranes peculiar to the organs of respiration and digestion; it shields and lubricates the same; tranquilizes the irritable state of the parts, and favors healthy action. We have prescribed linseed-tea, in large quantities, during the past month, for horses laboring under the prevailing influenza, they seemed to derive much benefit from it, and generally drank it with avidity. Aside from the benefit we derived from the action of mucilage and oil, which the seed contains, its nutriment elements are of some account, especially when given to animals laboring under soreness in the organs of dilution, which incapacitates them from swallowing more solid food. In the event of an animal becoming prostrated by inability to masticate or swallow more food, linseed-tea may be resorted to, and in cases of irritable cough, the addition of a little honey, makes it still more useful. In the latter form, it may be given to animals laboring under acute or chronic diseases of the urinary apparatus, more especially of the kidneys.

To Prepare Linseed-Tea.—Put a couple of handfulls of the seed into a bucket, and pour a gallon and a-half of boiling water upon it. Cover it up a short time, then add a couple of quarts of cold water, when it will be fit for use.

CALIFORNIA

Wine, Wool, and Stock Journal.

"Festina Lente,"—Hasten Slowly.

SAN FRANCISCO, AUGUST, 1863.

NOTICE.—The regular article on Wine Presses and Vinegar, for the present number, having been unfortunately lost, or miscarried, will account for the shortness of the article in this number, which was prepared at very short notice, just before going to press.

TO ADVERTISERS.—The WINE, WOOL AND STOCK JOURNAL now has a liberal circulation through the State among wine-growers, wool and stock raisers, dairymen, and agriculturists generally. Nurserymen, stock-raisers, inventors of new machines, will find our columns the place to make known their business; and now is the time to advertise.

NOTICE.—We respectfully ask attention of our subscribers to the bills inclosed in their papers last month, and hope they will *remit us the amount.* The sum in the aggregate is large. We have waited six months for many, and ask a ready response.

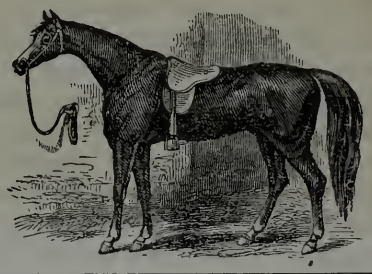
POSTERS—PRINTING, ETC.—We are prepared to get up Illuminated Posters and Showbills, for Agricultural and other Societies, in a style of typography hitherto unattempted in this State; we will also execute to order, all kinds of work for *stock breeders*, race meetings, nurserymen, and others; having received a supply of beautiful cuts, specially adapted for the purpose—specimens of which may be seen at our office—address orders to the publisher of this paper.

To Our Readers.

WE are pleased to announce to our readers, especially those in the wool districts, that we shall continue the articles on "Sheep Husbandry," from the *U. S. Economist*, in each issue, having made such arrangments as will enable us to receive them in advance of other publications, so as to publish the entire series in regular order in our Journal. They will be found of great interest, in the present aspect of wool affairs, on *both sides of the water.*

We shall receive, by the next steamer, (now due) the first of our series of Engravings of *Prize Animals*, for the Stock Department of our paper, which will be commenced in the September number, giving illustrations and engravings monthly. We are sparing no pains or expense to make the WINE, WOOL, AND STOCK JOURNAL the best, most instructive, and valuable publication, on these subjects, on the Pacific Coast.

We shall steadily increase the size of our paper, as fast as we can do so in justice to ourselves and our subscribers, and hope that a corresponding interest will be exerted, in the shape of subscriptions, to help sustain a paper strictly devoted to subjects of so much importance to all engaged in agriculture. A separate department on Horticulture and Fruit Raising; also on Mining and other interests, will be commenced in September and regularly kept up, with valuable articles and illustrations pertaining to the subjects. Will our regular subscribers each try to send us a new name, and encourage the enterprize we are engaged in?



On Breeding and Rearing Horses in California—No. 5.

We will now take up and consider the Roadster and general harness or saddle horse, a class of horse which is aimed at universally, but not so often obtained as attempted to be bred. Much of what I have written under the former head of "Thoroughbred," could have come with equal justice under this, as in my opinion the division between the two headings is merely nominal, but there is still something left to be said which will come more properly now than when treating formerly of the thoroughbred race horse. It is in this class above all others that the humbug of knowing horse jockeys has sway over the ignorance of the owners of mares desirous of putting them to a horse by whose means they will produce that most valuable animal, a good roadster. California is overrun with what are called "roadster stallions," being mongrel brutes of every variety, and which, from the different elements commingling in their blood, produce a different kind of animal out of each different mare they are crossed with. They are generally blessed with most astonishing and magnificent "certified pedigrees," tracing them to a relationship with all the good trotting horses, and many of the best thoroughbreds known in America. The black ones are always sure to be of the Black Hawk family; the bays and browns are invariably Morgans, and the greys are of Messenger stock, diversified by a dash of Whip, Tiger, English Coach, and the Lord knows what besides;

but let their appearance be what it may, in nine cases out of ten, it is quite impossible to prove anything about them, except that they are horses; if tolerably stout and good looking, or if they show speed in trotting, and resemble any of the known families of horses here believed in, some of them get a great many mares, and disseminate an inferior stock over the country, to the lasting deterioration of our breeds. Now there is no way of preventing any man standing his horse for stud purposes if he can make it profitable, and the sole remedy for this evil is to lay on a high license fee on *all* stud horses; although when people see that they have not succeeded in getting what they expected and tried for in their foals, this sort of horse will gradually fall into disuse, and more discrimination will be exercised in thoroughly examining into the qualities and blood of stud animals. Now I need not here repeat what I have previously affirmed at length, that the beauty, speed, bottom, and general quality of all kinds of horses intended for saddle and light harness use, will be improved by crossing all the coarse kinds of these horses with the thoroughbred race horse; but passing that as a principal already sufficiently laid down, I take the case of those who may be desirous of eschewing the high spirit and nervous temperament of the race horse, and embuing their stock with more of the steady-pulling, docile, and quiet temper which is more wanted for general use in the genuine roadster, in whom may not be desired so much speed or game. For these, no doubt, the popular strains of the various American families of trotters will present most attractions, and of these probably the most prominent and fashionable is the one distinguished by the appellation of the Morgan horse, which, so far as I can understand, (a great deal which has been said and written on the subject) is a name intended to apply to all descendants, in however remote degree, of the "Justin Morgan" horse, an animal very much used by the farmers of Vermont to cross with their roadster mares, which, however, were an excellent breed, it is acknowledged, *long before this Morgan horse was heard of.* Inasmuch as a good deal depends upon the mare as well as the horse, this naming a breed after a single horse seems rather far-fetched, and, in my own mind, I have long since identified all these Morgans, Black Hawks, and their various tribes of quaint-named relations, the inevitable Morgan this, and Black Hawk that, as nothing but "Vermont" horses, or the breed got up by cultivating the horses of that State mostly used, and suitable, for harness purposes only, and if a new breed is to be fathered upon every famous stallion which may distinguish himself among them, the name of their breeds will soon be legion. But other absurdities as well as the naming of breeds after single horses, strike me in the articles of faith current amongst these "Morgan" and "Black Hawk" amateurs of the trotting horse, not only is the name of the parent horse to descend to his progeny, but apparently it is believed that the mantle of all his perfections likewise covers every scion of the horse, down to those possessing the smallest portion of the original blood, for they are all to be "Morgan" or "Black Hawk," even to the tenth generation of outcrossing, and all supposed to be equal to the original father of the family, and equally able to perpetuate the peculiarities of the type, no matter how much disseminated by admixture through other channels.

Why, the wildest enthusiast for the virtues of the thoroughbred claims for *him* no such power as this, but argues against the slightest adulteration in the purity of his blood, and instead of originating the breed from one single animal, had he been the best on earth, avows that our present thoroughbreds have come to their perfection after being bred pure for two hundred years, from a commencement of *many* of the best horses and mares then to be found.

That the original type of this "Morgan breed," which I consider to be no more nor less than the Canadian pony, is a good horse, there is no doubt whatever. He is the Norman-French horse, razeed by a vigorous climate, and by hardship into pony dimensions, and possesses, in the small compass into which his energies are compressed, almost the same power his originally larger size gave him. Here, in California, the breed seems again to expand, and the produce of small animals regains in our fertile pastures, and mild climate, the size lost in less favorable circumstances. For knocking about, and roughing over bad roads, and standing hardship in the way of bad care and short commons, so far as my experience goes, these Canadian horses beat any kind I am acquainted with, and are profitable animals for farmers and general business use in their own peculiar line. I have seen some very good trotters among them, quite fast enough for my ideas of comfortable progression, but I don't think they are often very faster than any of the other mixed bred horses from which the ranks of the great trotters are from time to time recruited. Every little while, a very fast trotting

phenomenon appears, and it is generally found, when he does appear, that nothing is known about his breed or family. He has been accidently picked up by some one, who, finding he promised well, has put him in a good trainer's hands, who has brought him out, and shown what was in him. Then comes the tug of war to claim the fast horse as a genuine "Morgan," a "Black Hawk," "Messenger," "Rattler," or what each man considers his own particular trotting stock. If any one hints that he *might* be nearly thoroughbred, if looks go for anything, it is immediately contradicted with scorn. "Oh, no! thoroughbreds *can't* trot," and as they are not often in circumstances where *known* thoroughbreds are likely to be tried *trotting*, the idea is adopted.

But to return. The breed to which the Vermont horses now bear the greatest resemblance, in my mind, is that old-fashioned Yorkshire breed, formerly known in England as the Cleveland bays. They are now nearly, if not quite, extinct, having been bred out by continual crossing with the thoroughbred; but they were a very useful, good kind for general purposes, and strongly resembled, in appearance, the horses which are pointed out here, and claimed for "Morgans." Indeed, I am sure that I have read in some authority treating of American horses, that an importation of a stallion of this breed to Vermont, or New Hampshire, took place in the early days. But such matters seem hard to arrive at with any certainty, and we must be content to take these horses as we find them, without pretending to unravel the mystery of their first production. Good, useful, general harness horses, they assuredly are, and the mares, when crossed with high bred horses, will produce animals combining all their present useful qualities, with much improved style and action.

And now, if it can be permitted for a "Hinglishman," without offense to criticise any matter appertaining to *trotting*, I would take the liberty, with due deference, to make a remark or two upon the mode of breaking and managing horses in harness in this country.

That our American breakers and trainers thoroughly understand all about manipulating, and driving horses in harness so as to get the greatest speed out of them, I admit with pleasure. They can teach the men of all other countries how to do that; but there I stop; for beyond getting the speed, I think for general *use* a match trotter, with iron mouth and break-neck gait, is about as unpleasant an animal to handle, or to look at going, as can well be imagined. In any other country they would be looked upon as entirely spoiled for every useful purpose. Elsewhere, for carriage and harness use, there are other qualifications far more desirable than the capability to pelt along at a headlong, rushing, sprawling gait, diversified every twenty yards, *a la* Black Hawk, with a hop and skip, even though it does get over the ground at the rate of a mile in two minutes and forty seconds—pulling the driver's arms off the while, and pounding the horse's own feet off upon hard roads. Circumstances alter cases, and I venture to say that if any keen Yankee speculator took a lot of these favorite trotting horses of the usual stamp to Europe, to sell for gentlemen's use, or for any purpose but for trotting *matches*, he would find but sorry prices offered for them. Nobody would have them, any more than they would buy, for similar purposes, race horses taken out of training, and knowing nothing but to gallop under a pull.

To make myself thoroughly understood, I will here state my own ideas of a gentleman's carriage or buggy horse, what he ought to be and to do, and what he ought not to be, and ought not to do. He should be from fifteen hands two inches to sixteen hands high, of handsome color and general appearance. He should *not* have a chunky, thick neck, wrong side up, and his huge head and nose painfully, because unnaturally, elevated by a cruel check rein hooked up as tight as it can be drawn; but he *should* have a long, clean, beautifully *arched* neck, carrying his chin somewhat in to his breast, which, if properly mouthed, he would do, *without any check rein at all.* His mouth should answer the slightest touch of the rein, and obey the strength of a lady's arm, whilst his action should be moderately high and showy, even if it did detract a little from absolute speed, which, indeed, does not seem to me likely to be called for, as a general thing, by those who make use of handsome harness horses, and can pay the best prices for them, at least out of America; and I should consider him spoiled, if he could only be driven by holding on to the reins, by a bit held in a mouth as hard as leather, and requiring the muscles of a Heenan to guide him, rushing like an avalanche on his way.

The great argument used by owners of trotting stallions, in advocating the claims of their low bred horses, as against the thoroughbred sire, is, that if their produce do not turn out fast, as a match trotter, he will make a fine, a useful, and saleable har-

ness horse. Well, he certainly may, for some purposes, such as farm wagon, or a plow, but according to the form prevalent among the majority of these horses, if they have not the speed to make them fast trotters, they are by nature wanting in the requisites to make them carriage horses, according to the standard of the people usually accustomed to own pleasure conveyances. They are rather more unfit for saddle horses, and I have not been able to see in what useful quality, except the one I have mentioned, they equal a thoroughbred, who, it is alway reiterated, when a bad race-horse, is useless. Now, this is just nonsense, for no finer carriage or saddle horse can be found than a pure thoroughbred horse; the trouble is, that even where they are plentiful, but few people can afford to buy them for the purpose. Probably the most fitting use for these numerous trotting or roadster stallions of mixed up race, is to get horses for stage and farm use, by putting them to an average of the coarse, large, common mares, and to such I should confine their services, not being of opinion that they will *improve* the general stock of the country, and heartily hoping that before long legislative enactments, and the general diffusion of knowledge, will have much lessened their number. If the public would only reflect a little, they could not fail to see the absurdity of using these mongrel animals, which, unless in exceptional cases, are not likely to perpetuate even the good qualities or points they themselves possess, but will probably "throw back" to some vile jade of an ancestor. Whatever people breed from, let them assure themselves, if possible, that the horse they use for sire comes from several generations of good horses, *both by sire and dam*. He might be got by the best horse the world ever saw, out of a dam whose bad qualities would effectually *damn* every foal begotten; and although the horse himself bore every resemblance to *his* sire, yet his foals might, in most instances, be bred back to the bad stock. These are some of the anomalies of breeding which are little understood or considered by the generality of those raising horses in California, and inattention to, and disbelief of them, is producing daily disappointment.

For instance, there have been introduced into this State a great number of horses as sires, all professing to be genuine "Black Hawk" horses, and probably many of them are so, according to the rule which seems to obtain, that to give a horse the right to the name, he has only to prove *some* relationship to the original horse, for I have not been able to discover that there is any limit of distance of relationship, which will *disqualify* a horse possessing any of that blood from "claiming the name." Now, for argument's sake, let us suppose that original horse to have been *the best in the world;* the next generation would only have *half* his blood, the next one-fourth, one-eighth, one-sixteenth, and so on, till in a few generations the fraction left would be infinitesimal. It is evident that *our* stallions here, the best of them, can only be half Black Hawk, whilst their get are only one-fourth, and yet how many have we not here, standing as pure Black Hawk stallions, supposed to possess every virtue of the family, and yet containing, at the utmost, only one-fourth of the blood, and unable to have more of it unless bred to their own near relations. Either all the old established principles of breeding are entirely wrong, or this system of getting up a fashionable breed, supposed to originate from one horse, is one of the most arrrant humbugs out. A few generations of horses will elucidate this.

[Editorial Correspondence.]

Trip Around the Bay.

Centreville—Alameda County.

The farm of Robert Blacow, his herd of Short Horns, and flock of Merino Sheep, are well know to all who have ever visited this county, or attended the fairs, where his stock have always taken premiums. There seems to have been a depression of late in the fancy cattle market, and horse flesh seems to have predominated over "Short Horns;" the demand for the latter having been so limited that it has been of little inducement to extend or improve the business.

Mr. Blacow has thirty-five head of Short Horns, and five or six of Devon Cross. Among the Durham Cows may be mentioned: Lilly, Lady Mulligan, Verbena, Pink, Snow Drop, Pansy, Dahlia, Mignonnette, etc. Also, "San Antone," two years old, thoroughbred Durham bull, bred by Patterson. These, and other stock, have taken premiums at the State and other fairs since 1854. They were looking well, and perfect types of beauty, showing their careful breeding. I saw in the field sixty head of French Merino ewes, and sixteen French Merino bucks, bred by Mr. Blacow, and I must concur in the opinion that they are the finest flock in the State, for their number and appearance. This flock sprang from sixteen ewes and two bucks (imported by Patterson), within the past three years. The original investment was over $6,000. The young sheep are pure blood. The clip averaged sixteen pounds through the flock, and the fleece I saw from a buck eleven months old, raised by Mr. Blacow, weighed twenty-seven pounds.

The orchard and vineyard looked thrifty and promising. From the product of his vineyard he has made an excellent quality of red wine. Mr. Blacow was engaged in breeding stock for years previous to coming to California, and was among the earliest in the business in this State.

Mission San Jose.

We called upon Messer & McClure, who keep the principal store in the place; also, the Post-Office, Express Office, Etc. Their flocks of sheep were grazing in Livermore Valley, and in the San Joaquin range of mountains. They have about 7,000 sheep, old and young, ranging from American stock to full blood French and Spanish Merino. The spring clip averaged about three pounds each, amounting to nearly 13,000 pounds of wool, the product of 3,900 sheep.

Mr. J. M. Horner, near the Mission, is also engaged in stock raising. He is owner of the stallion "Morgan, Jr.," five years old, by Prince, out of a Morgan mare. He is of a dapple black, and a good stock getter. There are a number of excellent blood mares on the ranch.

We visited Mr. E. L. Beard, whose extensive orchards and gardens were among the most noted places in early days, full descriptions of which have been so often published that we forbear a repetition. Here are to be seen the large and famous pear trees, and immense fig trees, the oldest and largest in California, which were planted in 1793, by the Padres. The fig trees, ten in number, certainly excite wonder in a stranger, from their size and appearance; being nearly seventy years old, and still in bearing, their huge branches fairly trailing on the ground. The grounds are tastefully laid out, and surrounded by a high adobe wall, on the eastern portion of which, near the mill, is an immense hedge of cactus, over thirty feet high, full of fruit. The whole appearance of the orchard, with its venerable trees, their branches meeting overhead, forming a most agreeable canopy from the sun; the adobe buildings forming almost a square, and near by the "old Mission Church," relic of the olden time, gives to the whole scene a romantic and imposing appearance. Mr. Beard is one of the early settlers having been on the place *fourteen* years. The buildings formerly used as the home were destroyed by fire, a few years since, and the others have been refitted and replenished, making a most comfortable home for the pioneer and his family, than whom none are more ready in welcoming all who may become their guests, at their quiet home in the "Mission San Jose."

Near by is the ranch of Mr. Palmer, who is paying considerable attention to the breeding of horses. We were shown over the premises by Mr. O. A. Palmer. Among the horse stock were: "Rocket," Black Hawk colt four years old; "Rover," five years old, full brother to "Rocket," both sired by David Hill, from the mare known as Kitty Carr—imported. "May," three year old filly; and "Empress," two year old filly, by Carr; also, a light bay mare, two years old, sired by Billy Cheatem. Four immigrant horses, and a Black Hawk gelding, which came across the plains. The latter having been used in General Fremont's staff. He is a Kentucky bred horse. Also, "John Brown," gelding; a Kentucky blooded horse, and others.

Mr. Palmer was the owner of the famous buck "Crystal Palace," which originally cost $1,500. There were raised over 1,000 buck lambs from "Crystal Palace," which have sold from $50 to $150 each, according to quality of the ewes and the market of the day. There are about 1,500 breeding ewes—Australian, crossed with French Merino—and about 1,000 bucks and wethers; clip of wool, near 4,000 pounds. We saw the buck "Col. Gift," the oldest and first of the flock, by old Crystal Palace—his fleece weighed eighteen pounds. Also, "Dick Haskell," an imported Spanish Merino buck, six years old.

The vineyard comprises twelve acres, containing 10,000 vines, four years old, of the Mission variety, and 2,500 vines, three years old, of mixed foreign varieties.

Adjoining is the farm of Mr. Geo. W. Cook, who has some two hundred and twenty-five acres of wheat and barley, which promise a good yield, though the crops are lighter than usual. The orchard contains about 1,000 fruit trees. He has also a small vineyard. The soil in this locality seems very desirable for the growth of the vine.

Warm Springs.

The vineyard and orchard of C. Colombet is located just in the rear of the celebrated springs, and form quite an attractive place of resort. He has eighty-five acres and 60,000 foreign vines, comprising forty-two varieties, the best kinds for wines, and intends to plant 60,000 more vines. This vineyard is five years old, and located on the warm hill sides, exposed to the rays of the sun. He has one Mission or native vine, which has produced sixty pounds of grapes. One thousand five hundred vines are planted to the acre. We were shown the variety called the "Casis Grape," which makes the Casis wine or *liquor*, worth four or five dollars a gallon in France. The wines we tasted, made on the place, were white wine of 1862; claret, good body and color; a sherry wine, in bottles, three years old, been two years in pipes and then bottled, which is his first experience in this variety of wine. Also, brandy four years old. He made about 12,000 gallons of wine last year, and sold 3,000 boxes of grapes; will make this season, he says, from 30,000 to 35,000 gallons, the greater portion of which will be red wine or claret. He has 2,000 tobacco plants under cultivation, of four varieties—using sulphur, with success, for the destruction of the worm. We were shown specimens of the caper plant, in fruit, the first, we believe, grown in the county. Mr. Colombet has been here since 1844, and intends to cultivate the vine and make wine on a large scale. He is the owner of the property known as the Warm Springs, celebrated as a prominent place of resort, and was one of the managers of the hotel and springs the last season. They are now under the care of Messrs. Lee, Redding & Co., who have leased the place for ten years. Their popularity and the able management of the premises, have already made it the most prominent place of resort this summer. A notice of which we gave in our last issue.

We stopped a few moments, on our return, at French's Hotel, Milpitas, which by the way is the best stopping place for visitors on the way to the Warm Springs. Mr. French has been in the place several years, and his attention to business, and general urbanity have made his house popular. In a look around the stables, we noticed a three year old colt, by "Stockbridge Chief." Also, a two year old "Owen Dale" colt. Both out of a good American mare. They showed signs of much promise, partaking of the qualities of the sires to a great degree.

The population of the place is about one hundred and fifty, devoted mostly to farming and stock raising. The crops look well in the Calaveras Valley, and never promised better than the present season. The soil is a gravelly loam, and the

fogs and dews have a beneficial effect upon vegetation in general, especially the grain crops.

San Mateo County.

Black Hawk Ranch—Eastonia Shell Park, Etc.—The farm and residence of A. J. Easton, Esq., well known as the owner of the renowned Black Hawk stallion "David Hill." This noted farm, whose title heads this article, is about three miles from San Mateo, and eighteen miles from San Francisco, on the San Bruno Road. A brief description of its valuable stock, race track, etc., will give our readers some idea of the enterprise of one man, in the science of horse breeding, and its results, from facts. "David Hill" was imported by Mr. Easton, from Vermont, and is now eleven years old, and has proved himself as good, if not the best, stock horse in the State. As a roadster, his owner challenges any one to show a record like that of "David Hill," which is certainly unparalleled in the sales of stock, a list of which we give below, as furnished at our request by Mr. Easton, showing the sales made within a period of twelve months, and prices paid for "David Hill" colts:

5-year old filly	$1,450	4-year old colt	$1,000
4-year old filly	1,400	4-year old colt	1,000
4-year old filly	2,000	4-year old colt	1,000
3-year old filly	1,000	3-year old colt	1.100
5-year old colt	1,000	2-year old colt	1,750
4-year old colt	1.200		
4-year old colt	1,200	Total	$25,800
4-year old colt	1,200		

The following prices have been offered for "David Hill" colts, and the owners declined to make the sales:

3-year old colt	$4,000
3-year old colt	1,500
Half interest in a 4-year old colt, $2,000, making the whole value	4,000

No better test need be offered as to the merit of a horse than his salable price, which, from the above figures, show an average each of $1,612 80 for *sixteen animals*, which, Mr. Easton prides himself, and justly too, is truly a most satisfactory exhibit. Although in our province, we cannot at this time go into a detail of the beautiful grounds, the mansion, from which the finest view may be had, the extensive farming and grazing lands, and other attractions at "Eastonia," for want of space will compel us to curtail somewhat, and we will therefore pass on to the barns for a peep at "David Hill," and the young Black Hawks—"Ben Franklin," a three year old colt, sixteen hands high; "San Mateo," four years old, heavy bone and muscle, and considered the best colt from the old horse in the State; "Lucy Escott," "Young Vernon," both four year olds, and others of equal merit. Also, an "Ethan Allen" colt, five years old, belonging to Mr. Mills. There are also about thirty Black Hawk colts in the fields, ranging from sucking colts to three year olds, varying in price from $500 to $1,650. "David Hill" has netted over $40,000, besides the stock on the place.

The new race track is located on the marsh land, near the bay, properly drained by ditches, and protected from the tides by flood-gates. The track is a full mile, made in the most substantial manner, and pronounced by competent judges to be the finest and fastest mile track in the State, if not in the United States. The course is fifty feet wide and covered with shells from an old Indian mound in the neighborhood, from which it appropriately derives its name—"Eastonia Shell Park." It is level as a floor, and possessing a certain elasticity so necessary to the course. The judge's stand combines many new improvements and conveniences, and the finest view of any in the State. Another advantage of location is the even temperature for horses and the perfect freedom from dust. In a drive over the track we were particularly struck with its advantages over any track within our knowledge. In the construction and preparation of the track Mr. Easton has spared no pains or expense. It has been sold within a few weeks to a private party for a large sum, and an extensive hotel and stables are being erected near the track, for the accommodation of a club of gentlemen and associates, who intend to keep their horses at the park. The dimensions of the building are seventy by thirty feet, and in every respect a first class building, containing parlors, billiard rooms, club rooms, smoking rooms, sleeping rooms, bath rooms, etc., all to be furnished in the best manner and with every possible convenience and comfort, which will make it the only establishment of the kind on the coast. The stables will be one hundred and twenty-six by thirty-five feet, with a capacity for forty horses, arranged in box stalls, and at a sufficient distance from the house to prevent any annoyance or danger arising therefrom.

As descriptions of the proposed park and improvements have been previously published, we deem this brief notice sufficient at this time, though it already has, and will continue, still to attract much attention, from its construction and improvements as well as location in what is destined to be, on the completion of the railroad to San Mateo and San Jose, a thriving and populous section.

San Mateo.

Howard Park—Residence of Geo. H. Howard, Esq., and one of the most lovely places imaginable—a perfect rural home—combining all the comforts and luxuries wished for or conceivable. After a walk around the extensive premises, the rural mansion, almost embowered in fragrant roses and honeysuckles, the fine, hard gravelled walks, flower gardens of various patterns, containing flowers and shrubs of every variety and hue; the orchards, bending under their loads of fruit; green lawns, surrounded by magnificent shade trees, oaks, laurels, elms, and innumerable others, among which the beautiful bay tree, with its evergreen foliage, is conspicuous; these with numerous other attractions, compel the visitor to realize that *art* has only improved what *nature* left undone. Mr. Howard has lately added a new wing to the mansion, containing library, parlors, and billiard rooms, above all an observatory, from which the finest views can be obtained over the valley, with its splendid scenery, enough to gratify the eye. Mr. Howard is paying much attention to the improvement of his stock, particularly the Durhams. He imported the first Short Horns to California in 1856, from which, with other and later importations and purchases, have sprung his present valuable herd, in which he takes especial pleasure and pride. There are now about ninety head of Short Horns, half and three-quarter breeds, in all, old and young, mostly away in the pasture, which prevented our seeing them. Those we did see were, however, fine specimens, and bred with especial care—"Philomena," "Nightingale," "Hopeful," etc.; some imported and others bred by himself. The stables were extensive, and arranged on the most modern scale, and containing a goodly share of horse-

flesh, usually to be found at a gentleman's country-seat. Also, the following: "Cora," brood mare, eight years old, out of a Messenger mare by Jackson; "Fanny," white mare, with foal by Nena Sahib; one Shetland pony, in foal to Royal Clyde—Shetland stock—a perfect beauty, and the children's pet. The other stock does not require further notice, the place being a private residence and the owner wisely declining any particular notoriety of his fine place or stock. We have taken the liberty of saying what we have in our flying visit through the valley, and a most agreeable call at Howard Park.

The San Mateo House, long and favorably known, under the management of "Tony Oakes," has been taken by Messrs. Page & Irvin, and will continue to be kept in a style compatible with the wishes of the most fastidious epicure. Two-thirds of the original house remain, to which additions are being made. No more pleasant drive can be imagined than from the city to the San Mateo House, over a fine road, with plenty of scenery, land and water, and a clear, bracing atmosphere, enough to insure a good appetite for a dinner, which Mr. Holmes, the gentlemanly superintendent, will get you up in the best style, at short notice. The San Mateo House has been refitted and furnished in the most comfortable manner. The Post-Office, Express Office, and Telegraph are all connected with the house, under the able charge of Mr. J. E. Skidmore. A daily mail and express leaves and arrives regularly.

It is the intention to connect at this house with the Overland Mail Stage as soon as the railroad is finished. The depot will be back of the house about four hundred yards, in the neighborhood of which it is proposed to lay out the new town of San Mateo, comprising sixty acres. The streets are laid out and graded, and a majority of the lots sold, in lots of fifty by one hundred and ten feet.

About a mile from here, a spot of ten acres has been purchased by citizens, by subscription, for a seminary or female institute, to be under the charge of Miss Buckmaster, long and favorably known to the public as a successful teacher. It will be ready by September, and is an evidence of the increasing interest in the great subject of education.

In a passing call at "Baywood," the country seat of John Parrott, Esq., we took a look around the stables and fields to see the stock, which include "Napoleon," Devon bull, four years old, imported from England; also, two Devon cows, imported Durham bull, "Cyren ancestor Duke," four years old, and three pure blood Short Horn cows. We saw a fine bull calf, four months old, by Duke, and a number of half-breeds; "Water Prince," Durham bull, three years old, good modeled animal, though not possessing the marked points in "Duke." Last, though not least, the Alpaccas, purchased by Mr. Parrott last spring; they were in perfect health, and becoming quite domesticated, and form one of the attractive features at this fine farm. The female promises to yield an offspring.

Next adjoining is the estate of Stephen B. Whipple, Esq., at whose stables we saw "G. M. Patchen, jr.," where he was making his season under the care of Mr. C. H. Cochrane. "Patchen" was bred in New Jersey, and imported into this State in 1862; sired by G. M. Patchen. He trotted in 2:27 at the New Jersey Fair in 1861. The time will come when the thoroughbred horse will be used almost exclusively, in preference to all others. In the field we saw "Lady Vernon," with a horse colt by her side, by Patchen, said to be the finest colt produced, and for which the owner has refused $4,000. In the same field were a number of Patchen colts; also, the thoroughbred mare "Mignonnette." We were also shown the thoroughbred cow "Effie Dean," and some fine specimens of Essex and Suffolk pigs.

Our next call was at the country seat of A. Hayward, Esq., nearly opposite. The Durhams, for which Mr. H. has an especial fancy, attracted us by their fine appearance, and seemed to be admirable examples of the best stock; among which were "Fourth Grand Duke," red bull, four years old, sire Third Grand Duke, dam imported Lady Cramer; a young bull sixteen months old, sired by Grand Duke, dam Fanny. "Fanny," white cow, four years old, sire, Harold 4th; dam, Fanny Fern; "Diana," red roan, five years old, sire Ivanhoe, by imported Harold 2d; dam, Brunette; "Lily," white and spotted, two years old; "Helen," red cow, two years old; also, one yearling heifer, by Grand Duke, out of Diana; and a few handsome calves, by Grand Duke, out of Diana and Fanny. Mr. Hayward has been on the place but two years, and is beautifying and laying out the grounds with much taste. The new mansion, when completed, will cost $12,000. In the absence of Mr. Hayward, we were shown over the grounds by his agent, Mr. Towle.

The next place, adjoining, is the residence of Charles B. Polhemus, Esq., who has in his stables some fine specimens of horse stock. "Lady Lightfoot," imported mare, five years old, Sweet Briar stock; a pair of Taylor colts, three and four years old. "Live Oak George," stallion, ten years old, sired by old Black Hawk, Messenger dam; also, a number of fine looking colts by Ben Bolt, and a number of excellent brood mares, in foal to Live Oak George.

The drive through this part of the country is charming indeed, passing through Redwood City, well known as being the port for shipping the immense quantities of lumber, and then reaching the southern portion of the valley, the road being almost lined with trees on either side, comprising oak, sycamore, laurel, etc., passing on the route some beautiful country seats, the homes of some of our prominent wealthy merchants, Messrs. Selby, Atherton, etc., until we reach "Menlo Park," of which we have spoken previously, but which seems to be a most lovely and appropriate spot for the new town, which is to be laid out in view of the railroad running through this section of the country, which must bring it near to San Francisco, and make it of much importance as a place for rural homes.

Thos. H. Selby, Esq., has a fine park, laid out in true English style, fine lawns and shrubbery; the approach to the house is over a fine graveled avenue, a quarter of a mile long, shaded by magnificent forest trees, live oak, alder, and laurel. The orchard comprises over 1,000 choice fruit trees. In the stable was a Belmont colt, four months old, and some fine brood mares, in foal to Belmont. Also, three Short Horn cows, by Buttercup, which will form the nucleus for a future herd of Short Horns.

"Valparaiso Park," residence of F. D. Atherton, Esq., adjoining Menlo Park. This is indeed a most lovely spot, combining all that nature and art could furnish in the adorn-

ment of a country home. A fine orchard of choice fruit trees is near the house, adjoining which is the fruit and vegetable garden, in which are some thrifty plants of Peruvian cotton, and tobacco, which seem to thrive well in this section. Near by is a large tower, containing a tank holding 10,000 gallons of water, for the supply of the house and garden, pumped up by an Ericsson engine, which we saw in full operation. The grounds are tastefully laid out, the avenue leading to the mansion being half a mile long; like all the beautiful parks and country seats, lined with forest trees, forming an agreeable shade; while fronting the road or entrance, a fine green lawn, giving to the whole a most charming and picturesque appearance.

Doyle's Ranch—Woodside Dairy.—Located about two miles back from the main road, containing about 2,600 acres, owned by R. C. Doyle—embracing the tracts known as the Lloyd Ranch, and Lone Tree Farm. This dairy receives the milk of 136 cows, and makes 250 pounds of cheese per day. There are seventeen (double lever) cheese presses in constant use. The buildings, ten in number, make a small village in appearance—the whole under the care of Mr. H. A. Reed, who explained all matters and answered all inquiries in the most obliging manner. This is one of the largest dairies in the State, and conducted on an extensive scale. It is the noted ranch formerly belonging to I. C. Woods, and the marks of his extravagance are everywhere noticeable. Lead pipe runs *three quarters of a mile over the ranch*, for conveying water, etc., and guns and muskets have been found on the ranch which must have cost $50 to $60 each. They have large corrals for the stock, and an abundance of water from an artesian well, supplied by a large tank, lined with stone six inches thick. Over 200 tons of beets were raised last year for the stock, and 400 tons of hay.

Mayfield—Santa Clara County.

Our next call was at the well-known stock ranch of H. W. Seale, near Mayfield, which, with the farm, comprises 1,700 acres. The following stock (pure Short Horns) were imported from Australia by Mr. Seale: *Bulls*—"Don Pedro," roan, three years old, by Gabrielli; "Rothschild," roan, three years old, by Dundas; "Callum Bawn," white, three years old, by Gabrielli; "Moss Royal," white, three years old, by Royal Hope. No purer or better stock of full bloods can be found in the county, and were all from experienced, high bred, English bulls. *Heifers*—"Wild Eyes the Second," roan, four years old, by Dundas; dam, Wild Eyes; took first prize at Victoria Agricultural Society in 1861, for best yearling heifer; "Cowslip the Sixth," red roan, four years old, by Fusileer; took the second prize at Victoria Agricultural Society in 1861. The thoroughbred jack "Young St. Louis," is also at this ranch. He was raised in St. Louis; stands fifteen and a half hands high, and is now four years old, and is undoubtedly the finest jack in the State.

Mr. Seale is about shipping two or three fine animals, bred from the above stock, to Victoria, showing the high estimation in which they are held, as pure bloods.

Mr. Seale is one of the most successful stock raisers in this section, and pursues the business in a correct and scientific manner.

The Mayfield House is kept by J. Otterson, known as "Uncle Jim" by all travelers. The Post-Office and Express connect with the house, which is a most convenient and comfortable stopping place.

About a mile from town is the ranch of Mr. D. Hoag, who has been on the place since 1854, and considerably interested in the dairy business—milking above thirty cows, and making one hundred pounds of butter a week. His main barn is one hundred and seventy feet long, with forty-nine cattle stalls and ten horse stalls, arranged in modern style. The large hay lofts will store one hundred and sixty tons of hay. The barn cost $6,600 in 1856. The ranch comprises between 10,000 and 12,000 acres, from woodland to grazing; located on San Francisquita Creek. There are one hundred and thirty head of American stock on the ranch.

The farm of Wm. Reynolds is on a branch of the San Francisquita Creek. He has seventy-five head of horses and twenty head of heifers, the latter being the offspring of the Devon bull Narragansett, who is now seven years old, sired by May Boy; dam, Nonpareil; one of the best Devon bulls in the State. The well known stallion "Wine Creek Black Hawk," owned by Mr. Reynolds, is making his season here. He is twelve years old, and half-brother to "Easton's Black Hawk." We saw some handsome colts, sired by "Wine Creek Black Hawk," four without a white hair on them, owned by Mr. R. There were some twenty-four other colts, by the old horse, owned by other parties.

Mr. Wm. Paul has a fine ranch of 600 acres, and a vineyard of 2,000 vines. He is the owner of "Abdallah," spoken of in our notes about Watsonville. There are twenty brood mares on the place, in foal by "Gen. Sigel" and "Othello;" also, some of Abdallah's stock, which look very promising. Mr. Paul is devoting himself to the improvement of this breed of stock.

Mayfield Farm, owned by Hon. J. S. Wallis, is one of the prominent places about Mayfield; sixty acres are inclosed to orchard, vineyard, and garden, with a fine lawn facing the main road. In the orchard there are 1,500 apple trees and 1,000 pear. The soil is a loamy adobe, and well adapted for the growth of fruit and vines.

Mountain View.

"Bell Founder Ranch"—so named from the horse "Bell Founder," who makes his regular seasons here. He is thirteen years old, and weighs 1,585 pounds—owned by Mr. Bagley, of San Francisco. There was also standing here, "Fairfield," stallion four years old, sired by the horse Capt. Fisher—dam, an Expedition mare. The stables are under the care of Wm. Bonar.

Messrs. Shumway & Jenkins, of Mountain View, had just received from Europe, a splendid stallion, which we were fortunate enough to see—"Hercules," dapple bay or brown horse, six years old, sixteen hands high, of racing stock, and pedigree without fault; fine symmetry; great power of substance. He is by Kingston, out of Daughter of Tosca. (See Stud Book, vol. 9, page 83.) "Kingston was a race horse, one of the best of his day, among the winners at the Derby. Daughter of Tosca is by Bay Middleton, out of Malvina," etc., etc. "Hercules" was imported from Europe direct by the proprietors, through Mr. Carr, formerly of Alviso. For the improvement of the stock in the valley, he will prove a most valuable acquisition.

Milk, Butter, and Cheese.—The *Agricultural Gazette* (England) has recently published a tabular statement of the milk yield of an English herd, from 1855 to 1861, from which it would appear that the quantity and quality of the milk has varied greatly, according to climate and other circumstances; the year of the greatest quantity not being the year of the poorest quality. When the cows yielded 550 gallons per head, the milk made ninety-five pounds of cheese per cow. When the yield was only 522 gallons, ninety-four pounds of cheese were made per cow. The extremely varied yield, year by year, is worthy of note.

There are 100 acres of tobacco under cultivation, near Marysville.

SHEEP HUSBANDRY--No. 3.

In our last week's issue we called attention to the immense increase of importations of wool since January last, as compared with former years, showing that the number of bales received in the first five months of the present year is equal to the whole number of bales received in the two years of 1860 and 1861, and nearly equal to the whole imports in 1862, which were by far the largest on record. This increased importation shows, conclusively, the confidence of wool dealers in a greatly increased demand in consequence of the falling off in the cotton supply. In order that wool-growers may not be misled, it may be proper to state that the large proportion of imported wool is exceedingly coarse, and only suited to the manufacture of carpets, blankets, and other extra heavy coarse woolens. It is confidently believed that the high rates for exchange, and the increased tariff on worsted goods, will enable the American manufacturers to produce them profitably hereafter, provided the wool best suited to the purpose can be obtained; and the question is, *shall it be imported, or will the American farmers produce it?* The wool required for worsted is that which will make the smallest and strongest thread with the least nap from the smallest amount of stock. No wool is so well adapted to this as the long sound staple article, clipped from the "Leicester" and "Cotswold" breeds, and the yearling wethers' wool from these breeds is far superior to any other. Combing takes out what is called "noils."* If the staple is weak it will break at the tender part, shortening and reducing the length by the amount broken off, and increasing the "noils," which is of far less value than the long wool. At the present time the great want in this country is wool to make warps. Plenty can be found for filling, but warp wool is scarcely to be found at all. It cannot be imported from Europe, as the scarcity of cotton will compel them to a larger use of worsted warps, and *wool adapted to this purpose will command a much higher price than any other.* The high rates for exchange will further operate to prevent importations of warp wool. In the manufacture of worsteds in England, forty years since, no cotton warps were used. In Bradford, the great worsted city of Great Britain, and of the world, as late as 1844, there was not a single factory used cotton-warps, and only a few cotton-warps were used in Halifax and vicinity in the production of "lastings." The yearling wether's wool is what constitutes the famous "hog" wool of England, which is nothing more nor less than the yearly wether lambs' wool, and the best in the known world for the production of worsted fabrics. When the demand is great the yearly wether's wool cannot be found in sufficient quantity, and it is therefore mixed with the wool from the older sheep. Ewe's wool is never used for warp. It is short and weak, and lacks the curl and beard of the yearling wether's wool. A yearling ewe's fleece is, however, as good *as* a yearling wether's, provided she has no lambs. If she comes in with lamb the first year, the fleece is weakened and unfitted for worsted warps. Suckling the lamb impoverishes the mother, and loss of condition in any sheep weakens the staple and greatly increases the amount of "noils," or broken and short fibers.

In order to secure first class wool, sheep should always be kept in an improving condition. It is an established principle in animal economy, that those who take the best care of stock, no matter what kind it is—horses, cattle, hogs, or what not—universally secure the largest profits, and to no class of stock does this principle apply more strongly than to sheep. In this lies the superiority of the English wether. It is always kept in an improving condition, fattening for the market, and never allowed, if by any means it can be prevented, to lose flesh. It is almost impossible to keep up the condition of ewes. Their health will be variable, and their fleeces equally so—stinted in growth—bottom cotted, or felted, with a weak place in the staple, which grew when the sheep was out of condition.

As we have before said, the "Leicester" and the "Cotswold" are the breeds best adapted for producing the wool most required at the present time. Their carcasses are large, and the wool of long staple, which renders them more valuable both for the fleece and the mutton. Let the farmer bear in mind, however, *that it is the yearlings and the wethers that will pay him the greatest profit.* The wethers, if well cared for, will be very large, producing heavy fleeces, and making as good mutton as the famous "Southdowns" of England. We saw a notice in one of the daily papers, a few days since, of five wethers having been sold in this market for fifty-five dollars, and of twenty-one wethers for two hundred and thirty-one dollars. Many of the farmers in our country, after securing a good flock of sheep, allow them to degenerate by breeding in, and

* "Noil" is the short fibres of wool separated from the long by combing.

by disposing of the lambs and keeping their old ewes. This is more frequently the case where farmers have a good market for lambs.

It will be well to bear in mind that the fleece of a sheep deteriorates every year, and the wool from ewes, with two lambs, is scarcely worth half as much as the fleece from a yearling or wether. Fleeces from a yearling wether have frequently been sold in England for as much as two lambs from an ewe, together with her fleece, while the wether had greatly increased in value during the year, and the ewe had decreased. *Ewes should be kept until two years old before coming in with lambs.* The increased weight of wool, the increased size of the ewe and lamb, and their improved condition, will more than compensate for a year's patient waiting. Breeding from too young deteriorates as much as breeding from too old. To keep a flock in a thriving condition no old ewes should be kept, and the rams should be changed often, taking care, in all cases, to obtain them from some other flock, and to breed from no ewes less than two years old. The fleeces will be larger, the wool better, and will consequently bring a better price. Wool adapted to the production of worsted will hereafter command a higher price than any other, as we have the strongest assurances, from parties well informed upon the subject, that the manufacture of worsted goods will at once be commenced in several parts of New England upon a large scale, and with skill and capital which will, it is confidently believed, insure success.

It has been suggested to us that it would be well to condense our articles on "Sheep Husbandry" as much as possible, in the hope that they will be copied by other papers, and thus be more likely to reach the farmers throughout the country, and especially in the West, for whose benefit they are intended. We have shortened the present article in accordance with this suggestion. Our information is obtained from parties who have the reputation of being as well informed as any in America on this important subject. The object is to show that "Sheep Husbandry," if followed with reasonable judgment, has always been profitable in this country, and that, in future, the demand cannot fail to be far greater than ever before, both for wool and mutton, at much higher prices, making it safer and more profitable than any other branch of agriculture in the Northern and Western States. And, furthermore, that *there can be no good farming without sheep.—United States Economist.*

MINING.

Temporarily, wild-cat mining has seen its zenith. We say temporarily, because from experience we feel convinced that neither experience nor anything else will ever make "fools wise." Persons with sense may be so taught, fools never; and as the growths of the latter are perennial and always in abundance, we are justified in looking forward to like results from like causes. The superabundance of companies, combined with the repetition of assessments and the absence of dividends, have tended greatly to diminish the *fu·ore* of the uninformed and unthinking excitable, who, possessed of more money than wit, have thus far bled so freely for the advantage of the interested projectors of wild-cat projects. The gudgeons that bit so freely, and have continued to do so for the past two years, at every new gilded and painted mining project, have begun to learn by experience that the old adage is correct, namely, that "it takes a mine to work a mine"—Ophirs, Gould & Curry's, Mexicans, etc., being the rare exceptions, and even with these, we believe we are justified in stating that only the first named has been carried on without making any call on the pockets of the shareholders—the mine throughout furnishing all the capital expended.

The temptation to draw too much on the mines at the first and last named works, has resulted in a catastrophe which has been long forseen and predicted by the initiated; the wonder not being such that a cave-in has taken place, but that it has been so long delayed. The instructive lesson to be derived from the misfortune alluded to, if such a term can properly be applied to a result caused by recklessly ignorant mismanagement, is the discovery that superintendents suitable for directing even the mining department alone of valuable mineral ground, are not to be found as plentiful as blackberries, and that the transferrence of parties hitherto accustomed to the helm, the desk, or the study of Coke upon Littleton, is as unwise a proceeding as it is unprofitable.

For some time to come, more sober and sensible views are likely to prevail, which will eventuate to the great advantage of mining, and cause its steady and progressive advancement and prosperity. We despair, however, of such being for the future permanently smooth, and unruffled by speculation. A short period of general prosperity will suffice to generate wild-cat speculation calculated to ease the pockets of heretofore unscathed enthusiasts. And so it will go on to the world's end.

The prospects of mining for the immediate future, in California and the contiguous territories, never was so good as at present, only requiring skillful and economical management to be exercised, to be productive of the most brilliant and profitable results. Attention must, however, be carefully directed to economy in the mechanical departments of mining and metallurgy, and the skill should be diligently sought for in both, whenever it can be obtained, of a practical, and not despising even that of a theoretical character. Tolerably sound views of the mechanical appliances required have at length pretty generally obtained, after a great waste of capital, time, and labor, in tomfoolries, the inventions of half crazed enthusiasts, who were entirely ignorant not only of the requirements of mining, but equally so of what had already been tried and discarded.

The metallurgical exigencies for reducing the complex ores which are generally associated with the precious metals, are, however, as prominent as ever. That a similar advance has not been made in this as with the mechanical department is not surprising, for this very good reason, that parties who by education and practice are qualified to superintend, suggest, and improve these operations are exceedingly sparse, being amongst the least numerous of any class connected with the whole range of science. Five hundred individuals could be found within the compass of the United States who would credibly fill its highest legislative or judicial offices, for one throughout the entire world, such as is now needed to devise the most economical metallurgical processes for reducing the varied minerals found so abundantly with us and around us, into their mallic forms.

VETERINARY DEPARTMENT.

Injuries of Joints in Horses—By R. Jennings, Veterinary Surgeon, Professor of Pathology and Surgery in the Veterinary College of Philadelphia.

[From the American Stock Journal.]

The following communication appeared in the May number of the *Stock Journal*, concerning an injury to the hock of a mare:

Editors American Stock Journal:

I have a valuable three year old mare, that about four weeks ago, by running, sprained her right hock joint very badly. Since then she limps on three legs, bearing very little, if any weight, on the sprained leg. It swelled very much, and in about two weeks after the accident, it gathered and broke in three places, two places outside and one inside the joint. Now I have used fomentations and poultices, with such liniments as are recommended by Spooner and Dadd, until the swelling continues and also the lameness, and it still continues to discharge a yellowish matter mixed with blood.

As veterinary surgeons in this part of the country try are few and far between, I would respectfully ask through the columns of the *Stock Journal*, the opinion of some Veterinary Professor what would be the proper treatment of the above described case.

Respectfully,

JOSEPH A. WINSPEAR.

It is not my usual custom to answer such inquiries through the press, but the case being one of unusual interest to horse owners generally, more particularly as the life of the animal in such cases is often involved, I will endeavor to answer him, for the benefit of others who may have animals similarly affected. In this attempt I labor under several disadvantages—first, in not seeing the mare; second, from the brief description of the case, the condition of the animal, or how she has been fed, not having been mentioned, which to the Veterinary Surgeon are of the greatest importance. I will therefore be compelled to draw largely on my imagination. Injuries of the hocks in horses are among the most common causes of lameness. Suppose, for instance, we have an animal injured in the hock, and in the manner mentioned by Mr. Winspear, the very nature of the injury would produce a severe inflammatory action in the part, causing swelling and pain. The hock joint is made up of six bones, which connect with one above (the tibia), and three bones below (the metatarsal), involving a large surface of inflammatory action within the joint itself; the whole being surrounded by a ligament called capsular; each of these bones is covered on all its connecting surfaces or articulations, one with the other, by a thin elastic substance called cartilage; this cartilage is covered by a very delicate membrane known as the synovial, the office of which is to secrete the synovia or joint oil, which lubricates the surface and prevents friction.

Thus made up the joint is elastic, capable of resisting very great concussion when evenly applied; but from a slip, misstep, or other causes, to render the concussion unequal, injuries to the joint is often the result. Active inflammation in a joint at first causes suspension of the synovial secretion, which, if it runs on to subacute or chronic form, without producing ulceration of the articular cartilages, augments the secretion of synovia, which becomes changed from its natural condition, thin, oily, and transparent, to a turbid fluid or semi-fluid substance, mixed with blood, lymph, and sometimes pus. This morbid accumulation often distends the bursal sack to its utmost capacity, causing the joint to become very large and painful to the touch, which condition cannot be benefited by poulticing, as such applications favor the formation of pus, which being confined would either be absorbed or find its way out through the skin, and then we have an open joint, the result of which is to establish nervous irritation and often death. Such I presume is the condition of Mr. Winspear's mare; if so, and she should escape with her life, the joint will become partially, but not completely, anchylosed, consequently she will be of little value. The proper course to pursue in such cases, is to feed moderately with good wholesome food—corn should not be used—and look well to the general health of the animal. Cooling applications to the joint should be made, but no poultices. Had the animal been properly treated by such application at first, together with local bleeding, the termination of the case would undoubtedly have been more favorable; bleeding at this late stage would only do harm.

While we are on this subject, allow me to go a little further. Severe inflammation may and often does terminate speedily in exostosis and anchylosis; in cases, however, where injuries of a joint are not sufficient to produce a very active inflammation, and that inflammation is not speedily removed, ulceration of the cartilage of the joint is the result, which runs on slowly, involving at last the bones in caries; hence we have lameness of a very obscure character, and very difficult to manage, requiring powerful stimulating applications, in order to arouse a reaction in the parts affected, and to induce bony depositions to be thrown out, in order to repair the loss already sustained, and induce union of the bones together by anchylosis. This condition is the usual termination of spavin and ring-bone.

Wool Market.

THE wool market this season presents some very singular features. From early in March until the first of June, it was very active, and wool commanded extreme prices. Suddenly in June, without any apparent cause, there was a decline from 5 to 6c per pound; and this state of things continued for more than five weeks, when a slight advance took place. And the same description of wool which sold in May for 25c to 26c, only commands from 22c to 22½c. Why this should be so, we cannot tell. At the same time buyers were paying the highest prices, Exchange and Insurance were much higher than at present, and very little encouragement from Eastern reports. But now, that Exchange can be negotiated on much more favorable terms, Insurance at lower rates, with the most encouraging reports from all parts of the world, that wool will be in great demand next fall and winter, we observe but few buyers in the market, and very little inclination to speculate in the article. It really seems to us that at no time has such a favorable opportunity offered to dealers to operate in wool. We note already a considerable advance in New York, of California wool, with an upward tendency. We trust to see a great deal of spirit manifested this fall, and an active competition, and in this way encouragement extended to our wool growers, who are endeavoring to produce a fine article of wool in this State.

Hides—12½ to 13c.

Tobacco—No sales of California. The sales of the fall crop will depend upon the manner in which it is cured; and we would caution growers to attend particularly to this fact.

Eureka Soap—Sales for July, 1,740 boxes.

NATIVE CALIFORNIA WINES.—We notice that Messrs. Hobbs, Gilmore & Co. have opened an establishment at Virginia, N. T., for the sale of the celebrated wines from B. D. Wilson's vineyard, Los Angeles, of which they are the agents. Among the varieties now made are White Wine from 1857 to 1861, Port, Angelica, California Sherry, California Brandy, Wine Bitters, and a new wine called "Mound Vineyard," which certainly has a superior flavor. The wine derives its name from its location, on the hill-side, or mountain, the soil of which is decomposed shell, with a proportion of lime in the soil. The reputation of these wines has extended to China, as well as the East; shipments going forward monthly to foreign ports. The wine cellars in San Francisco are on the corner of First and Market streets, where all the different varieties can be seen and tasted. These wines were kept in cellar several years before they were introduced into the market, acquiring a body and age, which accounts for their popularity.

TO WINE MAKERS, AND OTHERS.—We would call their attention to the advertisement of Messrs. Devoe, Dinsmore & Co., who are prepared to make *Wine Presses of all kinds*, for the coming season, at the shortest notice. Also, Cheese Presses, Tobacco Presses, etc. Those in want of a good Wine Press can be suited by calling at their foundry, on Fremont Street, San Francisco.

ANOTHER lot of immigrant horses, for all purposes desired, have arrived, for Reed & Noyes, and can be seen at Oldham & Crowell's stables, Market Street. They are really worth going to see, and seeing will certainly be an inducement to purchase.

N. B.—The publisher of the WINE, WOOL, AND STOCK JOURNAL *is not Col. Warren.* Having been confounded with the *California Farmer*, it is necessary to state that the two journals *have no connection whatever with each other.* Our readers will please bear this in mind.

THE PRACTICAL SHEPHERD.—A new and complete work on Sheep Husbandry, by Hon. Henry S. Randall, L.L.D., well known as the ablest writer on the subject, will be published in August, by J. B. Lippincott & Co., Philadelphia. Due notice will be given on receipt of the work, when we shall be able to furnish those wishing the same; which can be had by addressing the publisher of this journal.

ACKNOWLEDGMENTS.—Books received—*Wool Report to the Boston Board of Trade, for* 1862.

The following books from A. Roman & Co., San Francisco·

Manual of Flax Culture and Manufacture. Embracing full directions for preparing the ground, sowing, harvesting, etc.; with essays, etc. By D. D. T. Moore, Rochester, N. Y.

Complete Manual on the Cultivation of Tobacco. With illustrations, showing the plant in its different stages of growth. Published by C. M. Saxton, New York.

Tobacco Culture. Practical details given by fourteen experienced cultivators, in the United States. Also, notes on the tobacco worm, with illustrations. Published by Orange Judd, Park Row, New York.

Something About Coins. By E. I. Barra, First Street, corner Minna. A very interesting pamphlet, containing much information upon the subject of coins, with a list of the valuable coins in his cabinet, of all countries and denominations, including some rare ancient coins. They are well worthy a visit by the curious and interested.

NOTES on Petaluma dairies, Big Valley and its grain crops, Green Valley, its extensive orchards; Santa Rosa, Sonoma, wines, etc., will appear in our next.

THE *Pleuro Pneumonia*, is again doing its work of death among cattle in Massachusetts. A herd of 24 cows, valued at $624, was lately slaughtered for W. P. Childs of Waltham.

WE publish, with pleasure, the following lines which we find in a city paper:

Hebe, Ganymede, and Squarza.

When Jupiter quarreled with Hebe,
He took a young gentleman up
To hand him a slice of ambrosia,
And fill up with nectar his cup.

But Ganymede's office is ended,
And Jupiter sits now forlorn;
No Hebe to hand him his dinner,
No Ganymede gives him a horn.

Then Jove, hasten down from Olympus,
For SQUARZA you'll find—on our oath—
A better concoctor of punches,
Than Hebe and Ganymede both.

A fig for antiquity's nectar,
Since SQUARZA'S are better by odds—
And he, friend of grand Garibaldi,
Can make a punch fit for the gods.

EUREKA SOAP.

The BEST Chemical Olive Soap

IN THE MARKET.

Office, 207 Sacramento Street.

For Sale Everywhere.

EUREKA SOAP

WILL WASH WHITER, LAST LONGER AND GIVE better satisfaction than any Soap in the Market.

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Importer and Jobber of

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DRY GOODS

CARPETS, DUCK, Etc.

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HOMESTEADS, BUILDING LOTS,

MARKET GARDENS, ORCHARDS,

LAND BY THE BLOCK OR ACRE.

Farms, Etc., in and near Oakland, for sale by

WILLARD LEONARD, Agent,

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☞ C. HEFFERNAN is sole proprietor of McFARLAND'S PURE ESSENCE OF JAMAICA GINGER, Extra Peppermint, Stoughton's Bitters, Syrups, etc., etc.

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NEW GOODS,

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—AND—

IRON WORKS,

Northeast Cor. Fremont and Mission Streets,

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ALL KINDS MACHINERY MADE TO ORDER ON THE MOST reasonable terms.

WINE PRESSES,

Steam Engines, High and Low Pressure; Quartz Mills, Saw Mills, Mining Pumps, Hoisting Machines for mining purposes, Agricultural Implements, etc., etc., and Castings of all descriptions made to order.

Steam Engines on hand and for sale by

DEVOE, DINSMORE & CO.

For Sale, 1 Upright Post Drill, Putnam's manufacture. Also, 1 Thirty-Inch Screw Chuck. Repairing promptly attended to.

G. GROEZINGER,

—— DEALER IN ——

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RED AND WHITE WINES,

Anaheim Wines, Brandies, Port, Sherry, Angelica, etc.

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A SITUATION AS GOVERNESS, TO TEACH THE ordinary English Branches, and Music.

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Valuable Books for Wine Growers, Stock Raisers, Veterinary Surgeons, and on Tobacco and Flax Culture.

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JOHN CORBET

RESPECTFULLY ANNOUNCES THAT HE HAS NOW ON HAND at his establishment,

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Next door to the entrance to the Tehama House,

ALES, WINES, LIQUORS & CIGARS,

Of the best quality, which he will be happy to supply to his friends and the public generally.

The RETAIL DEPARTMENT is supplied with a choice selection of packages suitable for family and country trade.

Three Thousand Acres

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Farming, Orchard and Garden Lands.

For sale in quantities to suit. Part of the well known

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Situated in the County of Alameda.

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ALSO, FIRST PREMIUM

AT THE SAN FRANCISCO BAY DISTRICT AGRICULTURAL FAIR, 1862.

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NOW IN ACTIVE OPERATION AND READY TO receive orders. All kinds of

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Particular attention paid to PRIVATE MOULDS. All Patterns made at short notice, and Lettered as desired.

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JOHN TAYLOR, Agent.

N. B.—Samples can be seen at the office.

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Train has Arrived

From across the Plains, and are for sale at OLDHAM & CROWELL'S Stables, Market Street. The Stock comprises

Draft, Carriage and Trotting Horses.

Please give us a call. REED & NOYES.

FASHION LIVERY STABLE,

On SUTTER, bet. Montgomery and Sansome Streets.

BUCKLEY & JONES, Proprietors.

THIS NEW AND Magnificently finished Stable will be under the express charge of Mr. JOHN M. DANIELS, whose reputation has already been heralded over this State for the last ten years, as a careful handler of Horses, and whose judgement cannot be questioned. The proprietors have spared no pains or expense to erect and furnish their Stable. They will not claim, as it may be called an idle boast, to have the finest ventilated and most convenient Livery Stable in the city, but will invite inspection and abide the verdict.

Will have constantly on hand Carriages and Buggies, Carriage and Saddle Horses, and hope by strict attention to business to merit a share of livery businesss.

The Best Location for Residences

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THE WELL KNOWN GROUNDS OF THE SAN JOSE NURSERY have been laid out in STREETS and LOTS, being the continuation of those of the City.

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CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SAN FRANCISCO: SEPTEMBER, 1863. NUMBER 9.

For the Wine, Wool, and Stock Journal.

WINE MAKING—NO. 4.

BY ARPAD HARASZTHY,
Master of Cellars to the Buena Vista Vinicultural Society.

The Vintage.

THE harvesting of the grapes, for making both Red and White wines, should take place as soon as the grape has attained its maturity, not before and not after. If the grapes are plucked before this period, the wine will be flat, watery, or savage in taste. It will have but few if even any qualities that are looked after in a good Table Wine. If, on the contrary, you leave your grapes on the stem till after maturity, the wines become heavy, of great strength, and will make Dessert wines, but will never do for ordinary and free use. It is our aim, at this moment, to give methods of our own to make a good wine, either Red or White, for ordinary use at table; when we have finished this, we will turn our attention to the making of Dessert wines.

Pluck your grapes, then, when they are ripe, that is when they have lost their disagreeable tartish or green taste, and have acquired *their characteristic flavor*, which varies in each species of grape. *They all have one*, which is perceptible to ordinary palates though without experience.

Transport the bunches in boxes, baskets, or tubs, carefully, without bruising, to the place where you intend the wine should be made. This place should always be within your press house or but a few steps from your cellars. We are most averse to the method of stamping or pressing the grapes in the vineyard and then transporting the bruised berries or the must, to the cellars. Such practice is against all common sense and is without an excuse.

We will now examine, in detail, how Red and White wines are made, giving the definition of each.

Red Wine.

Red Wine is the result of the fermentation of the juice of the grape on its skin, on its seeds and skin, or on its seeds, skin, and stems.

The methods for making Red Wine are as numerous as there are vineyards. Some crush their grapes in the vineyard and then throw them into vats; some crush them only when in the fermenting vats; some crush the grapes slightly by the press, while others crush them with crushers or mills made on purpose. We give our preference to the two last methods, as with all the others grapes are crushed by the feet or by boots, neither methods being over delicate or clean. However, because a good wine was crushed by the feet or by boots, we would not put it away from us, though we might desire that it had been made otherwise.

Place your crusher immediately over your fermenting vat, if you can, and if not, as near as possible, to prevent the expense of carrying the crushed grapes. The feeder will remark that of an *armful* of bunches of grapes thrown on the rollers, the berries are crushed first and disappear while the stems still remain—when no more grapes are on them—he must take advantage of this, and throw half of these stems out and let the other half pass

through the rollers with the grapes. If you have vats like those we described in our June No., you close the opening of the false bottom and that of the head, to which you affix a syphon, if you desire the total suppression of contact with the exterior air; if not, you simply leave open the two inch hole for the issue of the excedant of carbonic acid. The difference between these two methods is so small that you may calculate the result as the same. If your vat is in a place which keeps a constant temperature of from sixty to seventy degrees, fermentation will begin about twelve hours, or at the most, twenty-four hours after the shutting of the heads. You bore a hole in the middle of the vat about a quarter of an inch in diameter, by which means you are able to judge of the state of the fermenting juice. You now have no more trouble, no more work than to taste your fermenting juice about once every four hours to see its state of progress. When the sugar has been converted into alcohol, when the sweetish taste has made place for a vinous taste, then draw off the juice immediately, be it day or night. The time has come, no matter what the color be. Fill your barrels or pipes only five-sixths full, leave the bung holes open, but place over them a cloth to prevent dust from falling into the barrel. Some persons fill up the barrels so that the foam, which is the result of fermentation, overflows; but this is a vicious practice, as it causes a certain loss of wine, and what is more, it engenders, by its evaporation, an acetification of the atmosphere in the cellar. By leaving one-sixth of the barrel empty, the foam that is formed finally sinks to the bottom, saves a certain quantity of wine, and keeps a neat appearance in the cellar, as well as purer air.

The fermentation continues in the casks for eight, ten, and fifteen days, according to the temperature of the cellar. Toward the end of the fermentation bung up the barrel tight and bore a gimlet hole near the bung, so that the small quantity of carbonic acid still formed can have an issue. When the fermentation has ceased, you stop up this hole; this is recognized by applying your ear to the hole; after having stopped it up for a few hours, upon removing the stopper, if there is a hissing noise, the fermentation still continues, if not, it has ceased.

This is our method of making wine, but we are furnished with all the material we mention, those not having that advantage must act otherwise. Let us suppose they have no crusher, and that their fermenting vats are provided neither with false bottom nor cover. In these cases, let them construct the frame work of a table, whose cover or top shall be laths crossing each other at right angles and leaving square interstices between them just large enough to let a couple of grapes pass through at the time without difficulty. That will be about an inch square. This table should have borders at its four sides about three inches above the surface of the laths. Under the laths and with the same amount of surface, place an inclined plane having borders and being water tight. Under the end of this plane's inclination, place a large empty tub; now then throw your grapes on the laths where they are seized by one or several men and rubbed against the bottom. The grapes detach themselves and the stems remain. The former upon being detached, fall through the laths on the inclined plane and roll into the tub. One-half of the stems should be thrown into the tub and the other half thrown aside. Then have a man expressly for stamping the grapes. He should have on India rubber boots, only used for that purpose and cleanly washed before he begins stamping. He should be placed near to the tub on a clean board, and as soon as it is half full remove it from under the inclined plane, where an empty tub is placed, and begin stamping in a measured manner and taking a circular direction. As soon as this is well crushed, it is carried away and thrown into the fermenting vat. The more hands you have in this operation, the more equal is the work, and the more continued. When the vat is about five-sixths full, you send the stamper in with his boots, which should reach above his knees, and cause him to tread down the mass evenly all over. This done, spread over the vat boards, or what is better, a cloth made for that purpose, to prevent a too easy change of air over the fermenting mass. If the temperature be that indicated above, the fermentation will begin inside of ten hours and will last about three days. You will take pains to taste the fermenting juice, as we indicated in speaking of the closed vats. The fermentation in the open vats is more boisterous, more violent, and more rapid, than that of the closed vats, whose equal fermentation takes about half again as much time. The fermentation is much more complete in the latter vats. The amount of natural sugar in the grape and the greatness of the mass, regulate the greater or less degree of violence in the fermentation. The greater the mass, the more complete the fermentation and the quicker it ferments.

In the open vats, after the juice has fermented from twelve to twenty-four hours, the whole of the skins, stems, and seeds, will rise to the top and form what we call the *hat of the vintage*. This, if left to itself, forms itself into a hard crust, and should there be a current of air over it soon becomes acetified. The acetification of the *hat* is the worst that could happen to the wine. This must be prevented by, in the first place, having no current of air in your fermenting room, and then when the hat has once well formed itself on the top, to shove it down, by portions, to the bottom of the vat by the aid of long poles, so that the liquid come on top again and both the hat and liquid be promiscuously mixed. This bathing and breaking up of the hat has still another advantage besides preventing the souring of the hat, it gives a deeper color to the wine. You will remark a very curious phenomenon upon applying your ear at the top of the vat where the hat is, and then where the juice is at the bottom. At the bottom you will hear a series of small cracking sounds, the formation of the bubbles of carbonic acid, or rather its globular formation, while at the top you will hear a violent boiling noise, continued as if but one, and going on with great fury. Also, in applying your hand to the top and to the bottom you will feel that the former is several degrees warmer than the latter, which is comparatively cold. This results from the fermentation being always more energetic in the hat than in the juice or the liquid.

The fermentation in the latter is, however, more measured and more regular, but also much slower, which is another reason for breaking up and pushing down the hat. It is to equalize the fermentation in both masses, to prevent the hat from souring, and to give a deeper color to the wine. After having once shoved down the hat thoroughly, you should calmly await the moment for drawing the wine. Do not mix the hat with the juice a second time because as sure as you do, your wine will always remain cloudy and its color, though it may be clear, never will be brilliant. Brilliancy is always the appendage of a wine that has been made rightly. After the racking off, the wine is treated as before described.

There is one thing we forgot to mention, that is, that the *same vat* must be filled up the *same day it was begun*. Never have your vats of greater size than you can fill in one day. If you did, the bruised grapes you threw in would, under the influence of the temperature, start their fermentation and be going on in fine order when you brought a new lot in, from the vineyard, all cooled. As soon as these are introduced into the vat the temperature is lowered and the fermentation, if it does not cease for the moment altogether, at least is much abated. It becomes unequal; you are kept waiting much longer for your wine, which, when you do get it is far from that perfection that it would have attained had the fermentation been conducted in a wiser manner. Be sure, then, never to construct a fermenting vat too large to be filled in a single day.

Another precaution to be taken by the wine maker desirous of making his wine as perfect as possible, is to only gather the grapes after the sun has dried up all the dew drops from the bunches. This practice is not followed in all countries, but we think it ought to be, because, according to reliable sources, the grapes gathered before the rising of the sun introduce about four per cent. of watery matter into the mass, and, of course, diminishes the strength of the wine. It is also our firm conviction that this natural introduction of water must render to the wine an insipid taste. The practice may be allowed only when you are in a very warm climate where there is too much spirituosity in the wine. In this case it may be harmless, and even beneficial.

Before we finish these instructions on the making of Red Wine, let us say a few words about *Stemming*, that is, rejecting the stems, in part or wholly. In the south of France they *stem* wholly, and principally in the first-class vineyards of Medoc. They contend that their wines would lose their delicacy, and other qualities, if they did not reject the stems, and *they are right*. In the north of France, in Champagne and Burgundy, which countries produce the most delicate wines of the world, they do not stem at all, contending that if they did, their wines would be flat, not strong enough, and the fermentation would be too long; *they, also, are right*. The reader will not at first see how this can be, but a little patience and you will understand. In the northern, and in three-quarters of France, where steming is not resorted to, but most carefully avoided, the grapes get ripe late, and when thrown into the vats the temperature is already very low; now it is an acknowledged fact that the stems give activity to the fermentation. Besides this, the stems, it is known, contain, though in small quantity, a certain amount of alcohol, or rather saccharine matter convertible into alcohol. Then, besides its saccharine matter, the

stem contains a certain amount of *tannin*, the life of wine, some *free acids*, and an astringence which imparts *roughness* to the wine, and is a decided enemy to flatness. Founding themselves upon these facts, the wine makers of the north of France do not stem. They are right, for they thus obtain activity in their fermentation, obtain life for their wine, strength and vivacity. In the south, on the contrary, the weather is warm during the vintage, and the fermentation is only too violent, the grapes and wine plenty strong enough and more than sufficient free acids and tannin, without the presence of stems. And basing themselves upon these facts, in the south they stem. And they, too, are right. There may be other reasons given for stemming, or not, equally as good as those above, and which may be added to them without taking away from them any of their power. In the northern departments, the *Pinot* or *Pineau*, or grapes belonging to that family, are the most cultivated, and this grape, when ripe, has its stem dried up, and one might almost say withered. From this follows that but a small portion of its astringency is communicated to the wine, as most of the juice has been evaporated. In the southern departments, it is universal, or nearly so, with the grapes there cultivated, that their stems are coarse, green, and full of juice, even at the moment of the gathering. This would introduce a new and greater degree of astringency to the wine, which would render it unpalatable for a much longer period than it now takes, which is already very great. But, remarks the reader, if he is a reasoner, why do you reject only half the stems and not the whole, or why do you not keep the whole? Because the *Mission Grape*, or *Beni Carlo*, style it as you may, partakes somewhat of the character of the grapes of the south of France with regard to ,he stem, though, we believe, it is a little less astringent than most of them. Now then, last year some of our neighbors *stemmed* entirely, and we have found their wine flat, lacking vivacity. We, on the contrary, did not stem at all, and our wine we have found almost too harsh for use before from three to four years. Founding ourselves upon these observations, we counsel you to reject half of your stems and use the other half. There is one thing we wish the reader to bear in mind, *the stem has no bitter taste whatever;* its taste *is wholly astringent.* The *seed* contains the whole bitterness of the grape.

The *Murk*, or residue, left in the fermenting vats should be taken to your press, immediately after racking off the wine, and pressed. This you use for filling up your barrels or pipes when the fermentation in them has ceased. Be careful to divide the whole equally, so that the pressings of one vat may return to the juice fermented in that same vat. This pressed wine gives body to the rest. In Europe this method is not universally followed. Some sell the murk to distillers, others sell the pressed juice to distillers, while others keep it as a second rate wine for family consumption, or for the drink of the servants and laborers. The fermenting over for the season, wash out your vat cleanly and put on its inside a thick coating of white-wash and ashes, to protect it till next season. [*Continued in next No.*

SHEEP HUSBANDRY--No. 4.

In looking back at the condition of affairs, before the breaking out of the rebellion, it is surprising to find that so many styles of goods composed of cotton and wool were imported instead of being produced in our own country. So far as our manufacturers have attempted the production of goods of this character, in competition with foreign, they have been entirely successful. In half-wool delaines they have cast in the shade the foreign article and completely driven it out of the market. This was done, too, in times of peace when gold was at par, and when the tariff and exchange were trifling as compared with present rates. The same result would, no doubt, have attended the experiment of producing other cotton and worsted goods, such as coburgs, alpaccas, Italian cloth, red padding, and numerous other articles of a staple character, of which the consumption has been large for years past, and now that the war has produced a considerable advance in all styles of goods in Europe and the tariff has been largely increased, together with the enormous rates for exchange, and the necessity of paying duties in gold, the manufacture of this class of goods, and of many others composed entirely of wool, cannot fail to yield a handsome profit, provided the wool best adapted to their production can be obtained. It may be well to state, in this connection, that wool adapted to the production of worsteds is equally well adapted to the production of coarse woolens, such has heavy overcoatings, carpets, blankets, army clothing, coarse flannels, common cassimeres, jeans, tweeds, satinets, low grades of broadcloth, and, indeed, of more than half the goods worn by the masses of laboring people throughout the whole of the loyal States; so that there cannot fail to be a great demand for this grade of wool for years to

come under any circumstances that are likely to occur. The last eighteen months, Cotswold and Leicester fleeces have commanded as high prices in this market as Saxony and merino fleeces, on account of the demand for army clothing, and with the addition of a large demand for worsted purposes, and for the production of coarse woolens for civilians' wear that can no longer be imported with profit, there cannot be a reasonable doubt that coarse wool will find a sure market at remunerative prices. A gentleman of long experience in the wool business, and of not over sanguine temperament, expressed to us a few days since, his conviction that fifty millions of pounds of coarse wool could be disposed of annually in this market. We have recommended the increase, as fast as possible, of the Coltswold and Leicester breeds, for the reason that their wool is peculiarly adapted to the production of worsted fabrics, and in no country in the world is there likely to be so good a demand for worsted goods, for years to come, as in this. The prices of cotton goods having been advanced by reason of war to near the ordinary value of worsted goods, the consumption of the latter must necessarily be greatly increased, as their lightness, compared with woolens, and their durability as compared with cottons, render them exceedingly desirable for men and boys Summer clothing, while their brilliancy of colors and warmth render them equally as desirable in all the Northern States for women and children's clothing for a large portion of the year. We have been informed that the Cotswold breed has been crossed with good success with the Spanish merino. It is related to us that a gentleman in Massachusets had in 1853 a flock of Cotswold sheep, and living in a section of country where there was a good market for lambs, he had for a number of years disposed of them and kept his old ewes until their wool had become cotted (or felted) tender and slippery, the natural result of such a policy. The person who had bought the wool for a number of years finally refused to buy it any longer. The owner of the flock determined to change his policy, and bought a large merino buck, kept his lambs, killed and sold off his old ewes, and by strict attention and good care has to-day the best flock of worsted sheep in that part of the country. He gets a heavier fleece, his sheep are equally hardy, his lambs are as heavy as they were before the cross, and he obtains a better price for his wool in proportion to finer grades.

A very large proportion of the sheep in the Western States have a strong tincture of merino blood, and might be crossed with the long-wooled sheep, if thought desirable, *but the main point is to increase the number of sheep in the country as rapidly as possible, and of worsted sheep in particular.* No sheep except the aged should be disposed of for slaughtering.

At the present time there are about 20,000,000 in the loyal States, and this number ought to be doubled, at least, if the demand for wool is to be supplied by the home production in future. We visited a large wool house a day or two since, and were shown wool from nearly every country on the face of the globe. If we had visited a produce house, and had been shown samples of corn and wheat which had been imported from all these countries, it would have appeared to us quite as consistent. The rich lands of the West are just as well adapted to sheep husbandry as to the production of corn and wheat, and the two branches of agriculture can be carried on more profitably together on the same farm than it can be done separately. It is an established fact that sheep enrich land more than any other domestic animal. In Illinois, where the production of corn is so great, the farmers would find it exceeding profitable to have a flock of sheep to consume a portion of their surplus corn in Winter instead of disposing of it, as they have frequently been compelled to do within the last five years, at a price scarcely paying the cost of production. In the Winter of 1860 and '61, we well remember that corn was selling in this market at sixty-five cents a bushel, when the transportation and expenses of selling cost full fifty-five cents. This left but ten cents to the farmer. Corn is the very best Winter food for sheep, but it should be varied each day by hay, turnips, carrots, and other vegetables. In what way could the farmers of that country dispose of corn to better advantage than in feeding flocks of Leicester and Cotswolds, which, with reasonable care, would produce fleeces that would average from five to six pounds, as they do in Canada, and that in all human probability will sell for years to come at not less than forty cents a pound, and if the war continues will be more likely to sell for sixty cents than forty? On wheat lands sheep are regarded in England and by some of the best farmers in America as an absolute necessity. The Hon. H. S. Randall of this State, one of the ablest writers on sheep husbandry in the country, in a report to the State Agricultural Society last year, declares, "on our grain growing soils, at

least, sheep are an absolute necessity of good farming." In the report he quotes an extract from a letter written by Mr. Johnson, of Geneva, whom he speaks of as "one of the best wheat farmers in the State," in which it is declared that "sheep and wheat farming ought to go hand in hand in this country." One of the best farmers in Ohio, of whom his neighbors say that "everything *he* touches turns to gold," related to us a short time since, his custom of turning his sheep in the wheat fields for about a week at the close of the Winter frosts before the wheat begins to grow. The sheep, he said, would eat off all the frost bitten blades, and by cutting the wheat down close to the roots, trampling into the soil the roots that are thrown out by the frost, and by distributing manure over the field, would produce a new and more vigorous growth of wheat from the roots, at the same time benefiting the sheep by a fresh feed before the coming of the Spring grass. Farmers in the West that have never kept sheep would do well to try the experiment by purchasing a few, and if not found profitable, there would be no great loss. If well cared for, they *will* prove profitable in any part of the North or West, as has been demonstrated for the last forty years.

BREEDING IN.

One of the greatest evils connected with the culture of sheep is the custom of "breeding in." It is a law of Nature, as well defined as that the needle points to the North Pole, that the mingling of kindred blood will produce degeneracy and disease. In all civilized countries this principle is so well understood, and recognized, that laws are enacted to prohibit marriage between kindred. On the other hand, it is a well established fact that the greatest races of men that the world has ever produced, have sprung from an intermixture of remotest nations. England may be mentioned as a striking illustration of this theory. The great historian Macauley says: "early in the fourteenth century the amalgamation of the races was all but complete, and it was soon made manifest by signs not to be mistaken, that a people inferior to none existing in the world had been formed *by a mixture of three branches of the great Teutonic family with each other, and with the aboriginal Britons.*" The rapidity with which our own country has progressed in the scale of nations, may reasonably be attributed to a mingling of races, while China, Japan, and other countries, that have for centuries refused to commingle with other nations, are strong proofs of the degeneracy that naturally follows such a policy. In the animal kingdom it is well known that all the superior breeds are the result of "crossing."

The thoroughbred horse, the great breeds of cattle, sheep, and other animals, are so conclusive proofs of this principle that not a word of comment is necessary. The same principle applies to the vegetable kingdom, where all the great improvements in variety are the result of the mingling of different elements, while the planting of seed in the ground from which it is raised, is believed to be the principal cause of the numerous evils that beset the cultivation of the soil, such as the "rot" in potatoes, the "weevil," "smut," and "cockle," in wheat, etc. Some eight years since, it will be recollected that the wheat crop of Ohio was destroyed for several years in succession by the "weevil." This result is believed to have been caused by sowing wheat on the same ground from which it was raised, as it is well known that this was the common practice in Ohio at the time referred to. Finding their crops destroyed, the farmers came to the conclusion that the particular variety of wheat which they had been raising had "run out," as they termed it, and sent to other parts of the country for seed wheat. The impression became very general that the "Mediterranean" wheat was not subject to being destroyed by "weevil," which was true, *simply for the reason that it was a new variety, and had been but a short time before introduced.* It had, therefore, not been "bred in-and-in," as that which had been destroyed by "weevil" had been for years. *Any* seed wheat brought from other States would no doubt have proved equally beneficial as the Mediterranean. We heard a gentleman from Ohio, a short time since, extolling a variety of wheat, brought from California, which had proved wonderfully productive, and free from the evils we have mentioned. If the farmers of Ohio will send to California, or Maryland, Michigan, New York, Minnesota, or any other distant country, *every year for their seed wheat*, they will, in our judgment, find themselves relieved from "weevil," and from many other evils to which they have been subject. We noticed, a short time since, an account of disease having been developed in the silk worm in France to such an extent as to seriously threaten the destruction of the silk crop. The remedy proposed for this evil is suggestive of the sound philosophy with which the French people conduct their affairs. Their Representative at Shanghai was directed to procure a large number of co-

coons and send them to his government, and by thus intermingling a new element, it was thought that the disease would disappear. It is plain from these facts, that the disease among the silk worms was believed to have been caused by degeneracy, produced by "breeding in," and there cannot be a doubt that the remedy proposed will prove effectual.

Nature left to herself, without the ingenuity of man in mingling varieties and crossing breeds, produces stinted growth and degeneracy in both vegetable and animal life. A few illustrations by comparison will serve to prove this fact. Contrast, for example, the wild strawberry with the immense garden varieties—the wild plum with the "green gage" —the wild cherry with the "ox-hearts"—the crab apple with the "bellflower" and "golden pippin"— the wild pear with the "Bartlett" and "Virgaloo" —the wild peach with the "cling-stones" and others —and the wild rose with the "moss rose."

In the animal kingdom, contrast the wild cattle of Texas and Mexico with the Alderneys, the Durhams, the Devonshires, and others—the sheep of Mexico and South America with the Southdowns, the Merinos, the Leicesters, and Cotswolds—the wild horses of Mexico and Indian pony of our own country, with the Glencoes, the Eclipses, the Herods, the Bostons, the Fashions, the Lexingtons, the Patchens, Flora Temples, and Idlewilds.

It is the mingling of different elements that produces the healthy and vigorous growth, both in the vegetable and animal kingdoms, and this principle cannot be too strongly adhered to by wool-growers, as disease is sure to accompany degeneracy, and degeneracy, it is believed, is sure to follow "breeding in." We are aware that in expressing this sentiment, we are treading upon disputable premises. The Hon. H. S. Randall, whose writings upon the subject of sheep husbandry have a well-deserved and widely extended influence among intelligent wool-growers throughout the country, declares that "it is by no means true that it is either unsafe or improper to interbreed animals of any degree of relationship." He also says: "a majority of the most celebrated breeders and improvers of English cattle have been close in-and-in breeders." Such testimony from so high authority is entitled to great respect and consideration, yet we cannot believe but that the great cattle breeders referred to attained their success mainly in crossing the breeds. After having produced a distinct breed through the process of crossing, they no doubt bred "in-and-in" to a considerable extent to preserve it, but without an occasional intermixture of new blood, we think the tendency would be decidedly in the direction of degeneracy, and in this opinion we are confirmed by Mr. Randall himself, who says: "There comes a time generally when close in-and-in breeding between the artificial species which have been partly molded by man, produces loss of vigor and degeneracy, and sometimes this fatal overthrow is but one step away from the pinnacle of apparent success." In breeding sheep it is not necessary to keep constantly crossing breeds but a frequent change of rams of the same breed, and obtaining them from flocks as remote as possible with occasional crossing, is believed to be the most effectual method of keeping up the vigor and health of the flock. In England the growers very rarely breed from an ewe over seven years old, and never before they are two years old. By a careful selection of the breeding parents a constant improvement is kept up, and there is no country in which crossing breeds has been practiced to a greater extent or with greater success, as we shall attempt hereafter to show. The great object to be attained in our country, is to induce the farmers generally, and of the West in particular, where the facilities are greater than in any other part of the world, to try the experiment of adding sheep husbandry to their other agricultural pursuits. It is not expected that they will enter largely into the business at first. In all new enterprises it is well to feel the way, and we recommend that those who enter into the business should, by all means, adopt the policy of avoiding "in-and-in" breeding. Its tendency is unquestionably to produce degeneracy, and by many judicious observers is believed to be the cause of "rot," and many other diseases to which sheep are subject.—*U. S. Economist.*

Typographical Correction.—In the article on Sheep Husbandry, No. 3, last month, 45th line, "cotton warps" should have read "worsted warps," making the true reading of the sentence as follows: "In Bradford, in 1844, there was not a factory using worsted warps, and only a few were used in Halifax and vicinity in the production of lastings."

Profits of Dairying.—Mr. Phineas Field, of Hadley, Mass., was reported, at a recent meeting of the Russelville Farmers' Club of that town, to have obtained the following results from nine cows for one year, including two farrow cows milked four weeks: Butter, 1,740 pounds, worth at 22 cents per pound, $382 80; calves, $35; milk given to the hogs, $75; total, $494 80—making the product of each cow, $54 63.

Horticultural Department.

THINNING FRUIT.

There are many persons, not professional fruit-growers, who permit their trees to over-bear. From this cause the dwarf pear is liable to suffer more than any other fruit. Dwarf pear trees, to remain permanently healthy and productive, require a good soil and continued care and cultivation, in order to insure an annual growth of wood, without which the tree will only form fruit-spurs, and will begin and continue to decline, until after a few years it finally dies from exhaustion. Probably one-half of the dwarf pear trees that are annually sold, from want of proper care are suffered to get permanently into this habit, and make no healthy growth of wood, and finally bear themselves to death in the course of a very few years. No tree should be permitted to bear fruit until a vigorous, healthy growth of wood is established. Most trees are inclined to set more fruit than they can well ripen. But inexperienced cultivators are reluctant to remove any portion of it. The consequence is, that the whole crop is small and insipid, and the tree greatly checked in its growth and healthfulness. The number of specimens permitted to remain upon a tree, should be in proportion to the size and ability of the tree to fully develop and mature in the greatest perfection. In reducing the number of fruit upon a tree to one-third or one-half, it must not be expected that the *quantity* of mature fruit is reduced in the same proportion. The effect of proper thinning is to cause the remainder frequently to grow to double the size, and to improve the *quality* of the fruit in even a greater proportion. A peck of well-grown, fully-matured fruit is worth a bushel of that which is half-grown, such as we frequently see upon an over-crowded tree.

Although fruit from dwarf pear trees can be thinned with less inconvenience than either peaches or apples from standard trees, yet the thinning of these in small orchards is practicable, and the quality of the remaining fruit may be greatly improved by it. Peach trees grown with low heads are generally within reach from a step-ladder, and render the labor comparatively easy.

There are many varieties of apples that bear their fruit only in alternate years, and these are generally liable to over-bear and produce in such excess that the vigor and health of the trees are sometimes impaired, and the fruit is often small and of inferior quality. The cause of this habit of over-bearing in alternate years in certain kinds of apples, is owing to the supply of ascending sap being so completely appropriated by the growing fruit that there is not enough returned to form fruit-spurs for the following year, and it requires another season's growth for the tree to recuperate and be able to mature another crop. Annual bearing trees generally produce the largest and best matured fruit, because such are not so liable to over-bear. The habit of some of the varieties of apples which bear their fruit only in alternate years, may, by thinning the fruit, be so changed as to cause them to become regular annual bearers, with a decided improvement in the quality of the fruit.

The experienced vine-dresser aims to regulate the quantity of fruit that a vine is able to mature by the amount of the wood he removes at the time of winter pruning; he also, at the time of summer pruning, reduces the number of bunches upon the bearing shoots as occasion seems to require. But there are thousands of vines growing throughout the country that are not under the charge of experienced growers, and not annually pruned according to the best established rules, that still might be made to yield crops of tolerably fair fruit, by removing the excess of bunches before or about the time they are in blossom. When a vine has become old, and the proper treatment previously neglected, it is difficult to establish an annual growth of strong bearing canes, but it continues to send out innumerable small shoots, and each of these will set two or three clusters of grapes which, if permitted to remain, result in a large quantity of unripe, sour, and worthless fruit. Meeting with a number of vines in this condition last summer, about the time of blossoming, we recommended the removal of more than half the bunches; the result was an abundant crop of fair fruit—while a number of vines in the same condition, growing in the next inclosure, failed of this kind of treatment, and having twice the quantity of fruit on them that they could ripen, it proved worthless. Grapes may be thinned with greater facility than most kinds of fruit, by simply clipping the bunches with a pair of common shears.—*Country Gentleman.*

Prentice says there is not a chicken in Mississippi. The people down there are so hungry for something in the poultry line, that they could eat the weathercock on a church steeple.

PRESERVING FRUITS.

At the request of some of our subscribers on the subject, we publish the following, which will answer all questions aud we think purposes:

The modern method of putting up fruit in air-tight jars with little or no sugar, has been so often published that it can hardly be supposed that many good housewives can be found who do not understand it. But the snbject cannot be too often alluded to until every family in the land is induced to lay in a full supply of the various fruits for winter use, with as much certainty as the farmer does his beef and vegetables. Fruit, besides being one of the greatest luxuries, contributes greatly to health, and nothing is more economical as an article of food. This is an age of improvement, and each year's experience suggests something new, either in the manner of closing the jars, or in some equally important part of the process.

From the experience of a number of years in putting up various kinds of fruits, we learn that the less they are cooked the more nearly the natural flavor of the fruit is preserved, provided the heat has been raised to a sufficient degree as to entirely expel all the air contained in the cells of the fruit. Beyond this, cooking is unnecessary. For heating the fruit we have practiced various methods; at first it was scalded in a kettle and then put into jars, but of late years, particularly with the different berries, our practice has been to put them at once into the jars, and then set them into the water, raising the heat to the boiling point, letting them stand in the water until the contents were thoroughly heat through—taking the fruit from one of the jars to fill up the shrinkage, or some is scalded in a kettle for this purpose—and then sealing immediately. By putting the fruit into the jars before they are scalded, it retains its form much better. The most convenient vessel for setting the jars into for scalding, that we have tried, is a large tin pan, as large as can be conveniently heated over the stove, say to hold ten or twelve one quart jars at a time, in two rows. The depth of the pan should be nearly equal to the highth of the jars. We have learned one lesson by rather costly experience. If the jars set close down upon the bottom of the pan they are very liable to break owing to the confined air in the cavity at the bottom. To obviate this, a small wire is bent in a zig-zag form, so that some portion of the wire will come under the bottom of each jar.

Every year brings out a number of new patents for self-sealing jars. Of the great number of these, it is not easy, without a trial, to determine which are the best. A very convenient kind for closing, and which remains perfectly tight, is known as Lyman's patent. Last season we saw a very simple and economical method practiced, applicable to any kind of jars. It was applied, however, to fruits preserved in about half the usual weight of sugar, something after the old plan of preserving fruits, and the jars closed when not quite so hot as is usual in the modern method of putting up fruits. The jars were closed by simply pasting two thicknesses of strong Manilla paper over the neck, after having placed over the fruit in each jar a piece of paper cut to fit the inside. This paper is unsized, such as is used for printing; they kept perfectly. In sealing up fruits while hot, which should always be done, the shrinkage would be more and the pressure on the outside consequently greater. We think a very safe plan would be to apply, first, a piece of strong cloth over the jar, closely pasted around the neck, and then to cover that with two thicknesses of Manilla paper, the first extending a little below the edge of the cloth, and the next thickness below the first, so as to be sure and close every passage against the ingress of air; then to the whole apply one or two coats of glue. This would be a simple process that any one could perform, and we have no doubt would be as effectual as any of the patent self-sealers. We have frequently put up tomatoes and other fruits, in cheap quart jars, such as are sold at 75 cents per dozen, and closed them with nothing but a simple cap of strong cotton cloth, well waxed and firmly bound around the neck with twine, and the whole well coated over with wax; but the binding is a severe operation for the hands, and if paste and glue will answer the same purpose, cheap jars may be used and the work easily done.—H. *in Country Gentleman.*

Shipment of Cotton per Steamer to N. Y.—The *Golden Age*, which lately sailed for Panama, among other freight, took 159 bales of cotton, bound for New York. This cotton came from Shanghae in the bark *Emily Banning*, and failing of a market here, was shipped as above. From experiments in the introduction of the culture of this staple in California, it will not be long before cotton of our own raising will be shipped from here for manufacturers in the Eastern States.

CALIFORNIA

Wine, Wool, and Stock Journal.

"Festina Lente,"---Hasten Slowly.

SAN FRANCISCO, SEPTEMBER, '63.

N. B.—The publisher of the WINE, WOOL, AND STOCK JOURNAL *is not Col. Warren.* Having been confounded with the *California Farmer*, it is necessary to state that the two journals *have no connection whatever with each other.* Our readers will please bear this in mind.

TO ADVERTISERS.—The WINE, WOOL AND STOCK JOURNAL now has a liberal circulation through the State among wine-growers, wool and stock raisers, dairymen, and agriculturists generally. Nurserymen, stock-raisers, inventors of new machines, will find our columns the place to make known their business; and now is the time to advertise.

NOTICE.—We respectfully ask attention of our subscribers to the bills inclosed in their papers last month, and hope they will *remit us the amount.* The sum in the aggregate is large. We have waited six months for many, and ask a ready response.

POSTERS—PRINTING, ETC.—We are prepared to get up Illuminated Posters and Showbills, for Agricultural and other Societies, in a style of typography hitherto unattempted in this State; we will also execute to order, all kinds of work for *stock breeders*, race meetings, nurserymen, and others; having received a supply of beautiful cuts, specially adapted for the purpose—specimens of which may be seen at our office—address orders to the publisher of this paper.

To Our Readers.

OUR friends, who take an interest in the welfare and prosperity of the Journal, will be glad to learn that this month we print a much larger edition than we have hitherto done of any previous number. Of the large edition for September, many will be for gratuitous distribution at the approaching State and County Fairs. As will be seen by examination, the current number contains, in addition to a great deal of other interesting matter, the first of a series of articles on *Hops*, another on Wine Making, another on the *Breeding of Horses*, Etc.—subjects of paramount importance to the agricultural community, and which will be read by *thousands*, the present month. We are happy to find that our efforts to place a first-class Agricultural Journal within the reach of every farmer in the State, for a very moderate price, have been duly appreciated by the public. As a proof of this, we may mention that the Journal has been placed as a premium by some of the agricultural societies of the State, for certain classes of articles exhibited. This is highly encouraging. A good agricultural paper is a boon to the whole community, *and such has been long wanted in this State.* And it shall be our ambition not only to maintain the reputation which the Journal has already established, but to increase its interest with every successive publication. Since its establishment, *nine months ago*, we increased its size *twice*, and in this number we enlarge it again. As soon as we can complete the necessary preliminary arrangements, we intend to enlarge the Journal permanently, as well as to make some additions to our staff of Contributors, a definite announcement of which we hope to be able to lay before our readers in the October Number.

THE SCIENCE OF FARMING.

"GIVE me a fulcrum and a lever long enough, and I will lift the Universe out of its place," said, thousands of years ago, Archimedes, the inventor of the endless screw. Will this apply to agriculture? Yes; for to drive from the field deep-rooted prejudice, and habits, however hurtful, hallowed by centuries, and notions, however wrong, entwining, like parasitical weeds, the minds of farmers and the public, requires a firm fulcrum and a long lever.

Empirical has been nearly every branch of human industry, as far as our records go, and only within the last century was study attracted to "first principles" in technology.

And to first principles, agriculture too must be reduced, if farmers are to extract the *most* out of the *given* quantities, such as soil, labor, climate, moisture, manure, etc.

While musing on the desirability, aye, necessity, of an "Agricultural College for California," our eyes caught a notice of Liebig's Natural Laws of Husbandry, of which we have been favored with a copy by Messrs. Roman & Co. The leading morning daily of San Francisco summarized its view of this work quite to the point in saying: "The present volume embraces the mature views of Baron Liebig, after sixteen years of experiments and reflection. The fundamental basis of the work is the so called mineral theory, which holds that the food of plants is of inorganic nature, and that every one of the elements of food must be present in a soil for the proper growth of a plant. It is a valuable addition to the many scientific works on Husbandry, and contains information and instruction of importance to the farming interest."

And the first glance at its leaves immediately "transplanted" us back to those ever happy days of youth when our Professors and Doctors, after reading on Agriculture, Botany, Chemistry, and other kindred

themes, would accompany us out into the fields and forests, hills and dales, gardens and dairies, and follow up that ABC of theoretical instruction and book learning by practical demonstration.

No Book Farming! we hear some men declaim who grew up behind plough and dairy pail. Gentlemen, *no* book farming, we echo. *Rational* farming is all we contend for. In exact ratio as you bring your husbandry practice into harmony with the immutable laws of the Creator, you will reap profit from your soil and toil. Look back to the East whence the light of nature, as well as that of civilization, dawns upon you, and see what they are doing there.

Royal and Republican governments vie with each other in establishing agricultural schools and colleges, where the rising generation, incipient farmers in their teens, aspire to distinction in fathoming the *laws* on which all organic production proceeds.

Shaking off the conceit and dust of school learning, they must stand the fiery trials of opposition and, perhaps, even ridicule, at the hands of neighbors and competitors. Who will *win?*—that's the question.

Now, "the practical man does not understand the inferences of science, and considers himself bound to defend his own views. The contest is not about scientific principles, which he does not understand, but about the false conceptions he has formed of them. Until this contest has ended, by agriculturists themselves taking an active part in the matter, science can offer no effectual aid. I am doubtful if this time has arrived. I build my hopes, however, on the young generation who enter upon practice with a different preparation from their fathers."

Thus writes Liebig, the authority on agriculture, of the day, from the heart of Germany, where elementary education is compulsory, thus greatly aiding the schools of a higher grade. But the seed sown into the minds of the pupils at school and university is sprouting, and "Rational Farming" has been taken up by baron and boer, prince and peasant, *for the metre of a nation's wealth is its agricultural position.*

The elements are *not* wanting in this State to start an agricultural school of the highest order. Read the articles appearing from one quarter and another about the growth and culture of fruit, cereals, exotics, and matters of husbandry in general, and tell us if they do not betray an amount of sound learning and practical study that only require a fulcrum to turn themselves into the most powerful lever that has yet been brought to bear on agricultural interests in a community numerically so small as that of California.

Organization is all that is wanted. Pupils abound, and the inquiry for institutions of the kind is often heard. Our farmers are rich enough to "invest" in developing the intellectual minds of their own offspring. There is then the body; where is the animating soul? Let the Commissioners and Directors of the approaching fairs see whether they cannot find in *their* bodies that soul—that needed *fulcrum.*

THE CULTIVATION OF THE HOP.

Now that the cultivation of the Hop is carried on to some extent in California, and (although there seems to be a stock on hand large enough for local consumption) our farmers are being urged, in some quarters, to increase the cultivation of this plant, we have deemed it our duty to compile a series of articles, and to place before our readers such facts as will enable them to judge for themselves whether this branch of agriculture is likely to end in the desired result, a paying market. In order to fully understand the subject, we propose to give a short sketch of the Hop Culture, and to follow up the increase of its production and consumption, until its introduction on this continent. We have, therefore, been careful to consult the best authorities to which we had access, including the Patent Office Reports on Agriculture, the New American Cyclopedia, Homans' Cyclopedia of Commerce, McCulloch's Commercial Dictionary, Knight's London Cyclopedia, Tomlinson's Cyclopedia of the Useful Arts, and several other works of acknowleged ability. We have also obtained valuable information from practical men in San Francisco, so that the farming community will not be guided by our individual opinions, and, therefore, less likely to fall into error on the subject.

In this number of the JOURNAL, we intend to confine our remarks to the cultivation of the Hop in European countries; and in the following number we intend to speak of the crop raised in the Eastern States and in California.

DESCRIPTION OF THE HOP.

The Hop, as is well known, is a bitter plant used in the brewing of beer. Its botanical name is *Humulus lupulus*, and it belongs to the natural order *Urticaceæ*. It is a native of Britain and of most

parts of Europe, and it has been found growing wild on the banks of the Ohio, the Missouri, the Mississippi, and other American rivers. According to botanists, the Hop is a "dicœcious plant." Which in plain English, means that some of the plants are male and others female.

The male flowers grow on stalks quite distinct from the female flowers. Their office is to prepare the pollen or fertilizing dust; and when that dust has been conveyed from them to the female flowers, they wither away. The female flowers are in the form of foliaceous cones, and it is for the sake of these alone, that the plant is cultivated. They consist of scales which have at their base the germ of the future seed, and which possess the faculty of enlarging, as the scales of the fir cones do, but more particularly after the fertllization of the ovule, or future seed, by a quantity of the pollen from the male plant falling upon it. That the essential principle of the hop is increased by the presence of the male plant, may be proved from the fact that when vines grow in the neighborhood of the male plant, the hops gathered from them are much larger, and richer in aromatic and bitter principle, and a similar proportion of them suffice to hop a given quantity of malt. Another authority says that a bushel of hops collected from vines of the fourth year, raised from seed, weighed thirty-six pounds, there being male plants near. A second instance, where the plants were raised from cuttings, weighed thirty-five pounds; while a bushel grown in a garden where the male plants were eradicated, weighed only twenty-two pounds. Besides a greater quantity of hops thus obtained, the aroma was much greater, and the strength of the bitter was much greater, also.

ITS HISTORY IN ENGLAND.

At what period the hop was first used to preserve or improve the flavor of beer, or was cultivated for that purpose, cannot be ascertained, nor, indeed, is it a fact of much importance. According to Anderson's *Annals of Commerce*, however, it was introduced into England, from Flanders, in the year 1524, and soon became used extensively in the brewing of beer. From 1603 until 1863, there have been various legislative enactments about hops; and at the present time an excise duty is levied upon them by the Government, in proportion to their price.

The following table comprises the statistics of hop culture in Great Britain from 1853 to 1857 inclusive—the latest statistics we have been able to obtain—and also the amount of revenue derived from it, the duty at that time being 2d (4 cents) per pound, with an additional *ad valorem* duty of five per cent.:

Years.	Acres Cultivated.	Lbs. chgd Duty.	Amt. Duty.
1853	49,367	31,751,693	£277,824
1854	53,823	9,877,126	86,422
1855	57,757	83,221,304	728,183
1856	54,527	55,868,624	488,850
1857	50,975	19,671,056	417,526

According to the opinion of the Commissioners of Inland Revenue, the duty on English hops is a species of barometer which, in its rise and fall, indicates not only the quantity grown, but goes far to establish prices throughout the world. The marked fluctuations in their annual product may be discovered by comparing the above table with what follows in regard to the duty paid by the growers. Thus, in their fifth report, the Commissioners say:

"In 1859, 45,565 acres of hops were under cultivation, and in 1860, 46,272 acres; in 1859, 68,496,958 pounds of hops were charged with duty, and in 1860, 11,162,777 pounds; in 1859, the amount of duty was £59,346, and in 1860, £69,767. These figures speak for themselves, the duty on hops representing simply the quantity grown. The rate of duty was reduced in the last session from 2d. (4c.) per pound and five per cent. to 1½d. (3c.) per lb."

To show the avidity with which early samples of the first quality are purchased by the hop merchant and brewer in England, subsequent to a short crop, we quote the following paragraph, which is copied from a commercial report by the compiler of the Agricultural Patent Office Report for 1860:

"The first pocket of the growth of 1861 arrived in London on Tuesday, August 16, the growth of John M. Hooker, Esq. Moatland Benchley, and sold by Messrs. Gobel, Austen & Gobel, hop factors, Borough, at £25 per hundred weight—about $1 11c. per pound—to Messrs. Ranger & Co., hop merchants, 3 Crown Square, and was forthwith again sold by that firm to Evan Evans, Esq., the spirited proprietor of the extensive brewery in the Vale Heath, Glamorganshire. The plant from which this pocket was picked, is of the same sort as has furnished the earliest hops for some years past, and known as The Benchley Prolific. The quality, for so early in the season, is unusually good, and justifies the anticipation of some very early samples of this year's growth."

ENGLISH VARIETIES.

In England, the cultivation of the hop is chiefly confined to the southeastern part, embracing the counties of Kent, Sussex, and Surrey. In some of

the adjacent counties, also, it is carried on to a more limited extent; but it is in Kent, the "Garden of England," that about one-half of the whole crop is raised. The best quality is raised near Farnham, in Surrey. Among the varieties at present under cultivation in England—some of which have been introduced into the United States—are the following:

1. Occupying the first rank are the Farnham and Canterbury "Whitevines." These are so much alike, that they seem to be the same variety.

2. The "Goldings," which are little, if at all inferior to the preceding, are stronger, but are not quite so finely flavored. When growing, they may be distinguished from the other two by the vine being somewhat larger, and the hops hanging more singly on the branches. The vines of all the above varieties are specked with reddish brown. They require the longest poles in use, ranging, according to the soil, from fourteen to thirty feet. The main roots run deeper into the soil than those of any other variety, and their plants are the most enduring upon the same land.

3. The "Grapes," of which there are several subdivisions. They grow in clusters, and from this peculiarity they derive their name. They differ much in quality, the smaller sorts being superior—some of which, when grown on good land, nearly approach to the Goldings in value; while the larger descriptions, such as are usually cultivated in Sussex and the Weald of Kent, are coarse and of inferior quality. The vines of the Grapes are small, of a light green color, and require poles of from ten to fourteen feet in length.

4. "Jones' Hop." The vine of this hop is red. It grows on lighter and inferior land, and merely requires refuse poles of from eight to ten feet long. The crop of this variety could be much increased if the top vines and branches were trained and interlaced from pole to pole.

5. "The Colegates," are a very hardy variety, and grow best upon stiff soils. Although late in ripening, they are able to run up a long pole. The hop is small, and hangs from the branches in thick masses; but it is a sort not much esteemed by the brewer, as it is liable to be injured by mold. The color of the vine is a pale green, like that of the Grape, but larger.

6. The Flemish "Redvines." They will grow on light, silicious soils, and generally escape the aphis, or black blight; hence, they are commonly known by the name of "Never-Blacks." They produce a poor thin hop, and except from their favorable tendency to escape the aphis blight, they can in no wise be recommended.

CHEMICAL ANALYSES OF THE HOP.

Under the direction of the Royal Agricultural Society of England, analyses of the hop were taken; and as a knowledge of its natural ingredients may be serviceable to the farmers of California, we herewith introduce them.

No. 1 is the analysis of the produce of four hills of hops, grown in Farnham. They were of the Whitevine variety. The subsoil upon which they were cultivated was the soft marl rock, resting immediately upon the phosphoric band of the upper green sand of the chalk formation.

No. 2 was from three hills grown at Hadlow, in Kent. They were of the Yellow Grape variety, and were produced upon the wealden clay. Both samples were examined in their manufactured state, in the ordinary condition in which they were prepared for sale.

No. 3 was grown at Bentley, in Hampshire, upon the out-cropping of a phosphoric stratum of the chalk formation. The specimen was taken from two hills of the Farnham Whitevine variety, consisting of all the hops, leaves, and vines, which were carefully preserved, and dried artificially for the experiment.

Analysis No. 1—Farnham Whitevine.

	Hops.	Leaves.	Vine.
Per Centage of Ash or dry Matter..	9·90	16·33	5·00
Analysis of the Ashes:			
Silica	20·95	10·14	4·64
Chloride of Sodium	7·05	7·92	4·95
Chloride of Potassium	1·63	....	7·38
Soda	....	0·32	....
Potash	24·50	12·48	18·62
Lime	15·56	41·46	29·59
Magnesia	5·63	1·99	3·15
Sulphuric Acid	5·27	4·20	2·63
Phosphoric Acid	9·54	2·02	5·22
Phosphate of Iron	7·26	2·93	0·31
Carbonic Acid	2·61	16·54	23·51
	100·00	100·00	100·00

Analysis No. 2—Kent Yellow Grape.

	Hops.	Leaves.	Vine.
Per Centage of Ash or dry Matter..	15·80	25·11	5·10
Analysis of the Ashes:			
Silica	24·96	20·38	5·66
Choloride of Sodium	3·18	4·58	9·98
Chloride of Potassium	2·21	....	....
Soda	....	2·29	2·32
Potash	18·61	5·13	12·97
Lime	23·75	32·28	17·39
Magnesia	6·13	6·24	12·61
Sulphuric Acid	4·16	6·24	3·14
Phosphoric Acid	5·26	3·68	8·14
Phosphate of Iron	6·79	0·54	2·06
Phosphate of Alumina	....	....	1·55
Carbonic Acid	3·36	21·25	24·18
Manganese	1·59	....	trace.
	100·00	100·00	100·00

Analysis No. 3—Farnham Whitevine.

	Hops.	Leaves.	Vine.
Per Centage of Ash or dry Matter..	9·00	21·94	7·28
Composition of the Ashes:			
Silica	19·16	22·35	9·99
Chloride of Sodium	0·74	3·12	2·63
Chloride of Potassium	8·96	2·29	15·35
Soda	....	....	....
Potash	31·70	13·13	17·60
Lime	9·59	30·78	23·91
Magnesia	4·80	4·84	3·77
Peroxyde of Iron	0·68	0·19	0·80
Sulphuric Acid	5·10	1·89	2·33
Phosphoric Acid	17·33	9·33	11·69
Carbonic Acid	1·92	12·04	11·92
	99·98	99·96	99·99

As the crop from No. 3 was a full one, and of a healthy character, we subjoin a statement showing the amount of inorganic matter removed from the soil by a large crop. The actual amount grown was about a ton, or 2,240 lbs. of hops per acre, which nearly coincides with the quantity found by calculation from the two experimental hills, after making allowance for the water still retained in the manufactured crop. There were 1,200 hills to the acre:

	Produce of 2 hills. lbs.	Dry Mat. per acre. lbs.	Ash per acre. lbs.
Hop Flowers	3·50	1,894	170·43
Leaves	3·75	1,984	435·06
Vine	3 25	1,781	129·54

The composition of the ashes removed by an acre of hops, with leaves and vine, was in pounds, as follows:

	Hops.	Leaves.	Vine.
Silica	32·65	97·23	12·95
Chloride of Sodium	1·26	13·58	3·40
Chloride of Potassium	15·26	9·96	19·90
Soda	....	....	....
Potash	54·01	57·15	22·81
Lime	16·33	133·98	30·99
Magnesia	8·17	21·06	4·88
Peroxyde of Iron	1·14	0·82	1·03
Sulphuric Acid	8·69	8·22	3·02
Phosphoric Acid	29·53	40·61	15·15
Carbonic Acid	3·39	52·40	15·41
	170·43	435·06	129·54

The following is the quantity of nitrogen required for the above crop:

	Hops.	Leaves.	Vine.
First Experiment gave a per Centage of	2 96	2·51	1·33
Second " " "	3·00	2·43	1·35
Mean	2·98	2·47	1·34

From this table it appears that the above crop removed 56·44 lbs. of nitrogen per acre in the hops, and 49 lbs. in the leaves, and 23·86 lbs. in the vine, the total quantity removed being 129·3 lbs. per acre or nearly equal to that which is supplied by 1,000 lbs. of good Peruvian guano.

An examination of the foregoing tables ought to convince the hop grower that it would be to his pecuniary advantage to preserve his refuse vines and leaves, in order that he may return them to his land in the shape of manure; for it will be seen that they possess a large quantity of nitrogen, in addition to potash and phosphoric acid. The tables also show that the hop is one of the most exhausting among cultivated plants, both in regard to the organic and mineral constituents which it extracts from the soil. And when it is remembered that it is perennial in its growth, the importance of selecting a fertile soil for its cultivation, will readily be conceded.

THE SOIL REQUIRED FOR HOPS.

That a fertile soil is required for the successful cultivation of the hop, all authorities are agreed. One says that it needs a "very rich, mellow soil, and careful cultivation. The soil of a hop garden must be rich to a considerable depth, or made so artificially. The subsoil must be dry and sound. A porous rocky subsoil, covered with two or three feet of vegetable mold, is the best for hops. The exposure should be toward the south, on the slope of a hill, or in a well sheltered valley. Old rich pastures make the best hop gardens. They should be dug two or more spits (about 20 inches) deep, and the sods buried at the bottom where they will gradually decay and afford nourishment to the slender roots of the plants which strike deep. A very large quantity of the richest rotten dung, at least 100 cubic yards per acre, should be well incorporated with the soil by repeated plowing, till it is entirely decomposed and produces that dark tint which is a sure sign of an abundance of humus. The ground should be prepared by laying it up with a spade in high ridges before winter, to expose it as much as possible to the mellowing influences of the frost. A succession of green crops, such as rye cut green or fed off with sheep, early turnips fed off in autumn, or spring tares, are an excellent preparation by cleaning the land."

Another authority says that the "naturally most fertile soils should be chosen, such as are usually found already formed in valleys, from the debris of the surrounding country, the valleys of the present era, or in the more lately-formed alluvial deposits near existing rivers. Those soils are commonly recognized as rich, friable loams, possessing a natural drainage, and yet retaining a high degree of tenacity for water. There are also certain classes of soil very dissimilar from these loams, in respect to situation and appearance, which are most genial to the growth of hops; these are outcrops of certain geological strata, the rock of which was once the detritus of a remote era in the history of our globe. They are generally rich in organic remains, and these

remains, in their analytical constituents, closely resemble the hop itself. And there is a third class of soils, most unfitting for the growth of hops in its natural condition, but which, by skillful draining, deep cultivation, and consequent aeration, may be made equal to the most naturally fertile soils."

As far as soil is concerned, therefore, California seems to abound with tracts of the right kind.

[*To be concluded in our next.*]

SANTA CRUZ PETROLEUM.

The Santa Cruz Petroleum Company contemplate erecting works for the manufacture of oil. The locality is about seven miles from town, on the Meeder ranch. We found what appears to be almost inexhaustible quantities of a substance resembling asphaltum, but of a more oily nature. The veins or strata, several in number, vary from one foot to ten feet in thickness, and, as far as prospected, extend over more than a thousand acres. Near the surface where the substance has long been exposed to the atmosphere, it is hard, but brittle, like sandstone. Under the surface the petroleum is much softer, and so rich with oil that on being exposed to the sun, it becomes of the consistence of tar. A slight heat is sufficient to render it liquid and easily separable from the sandy particles with which it is combined. Before exposure to the sun or heat, it resembles sand saturated with tar. It has very little smell, and that not a kind as disagreeable as most of the crude coal oil procured from the oil springs of Pennsylvania. The company will soon have materials here for the erection of a retort of sufficient capacity to manufacture fourteen hundred gallons per week. They will construct a road to the works, which can be done without much expense, and there is every reason to believe the business will prove highly remunerative. In view of the great quantity of the material, the readiness with which the oil is extracted, and the facilities for reaching market, it seems almost beyond doubt that the experiment must prove highly successful. We anticipate, ere long, the erection of a Refinery in Santa Cruz, and perhaps several of them in San Francisco. The city of Buffalo, New York, has eleven refineries, giving employment to upwards of a hundred persons, and having a capacity to refine 80,000 barrels annually. In every large town at the East, are one or more of these refineries. There is no calculating the results of so important a discovery. The greatest oil producing region, except Pennsylvania, is in the vicinity of Sarnia, Canada West. There are over thirty firms in Canada engaged in refining the crude petroleum produced near Sarnia, with a weekly product of over two thousand barrels of refined oil from seventy stills, which will give an annual product of 32,000,000 gallons. It will be a happy day for Santa Cruz, should such good luck turn up for her. —*Santa Cruz Sentinel.*

ARCHBISHOP.

We present to our patrons, this month, the first of our series of illustrations for the Stock Journal, the Southdown ram "Archbishop," selected by Mr. Thorne from Mr. Webb's flock, while in England in 1860—winner of First Prize at the Royal Society Show at Canterbury, in the yearling class, as will be seen by reference to the catalogue of Mr. Webb's last sale—was more largely used in his flock the previous season than any other sheep.

We have received by the last steamer, from Mr. Thorne, catalogues of a sale of Southdown Sheep, from the Thorndale Flock, to be sold at auction, on the 2d of September. There are eighty-three ewes and seventeen rams in the list among the imported sheep, including "Archbishop." The sale will be conducted by Mr. Jno. R. Page, the well known stock auctioneer of New York. Mr. Thorne ranks the highest, as a successful breeder of Shorthorns, in the United States; and his name is as familiar in Europe as America, from whence he has exported the choicest breeds of Durhams ever exhibited in the United States. Our next representation will be a pair of Southdown Ewes, bred by Mr. Thorne.

Wool.—The history of the growth of wool is very curious. Fifty years ago, not a pound of fine wool was raised in the United States, in Great Britain, or in any other country except Spain. In the latter country, the flocks were owned exclusively by the nobility or by the crown. In 1794 a small flock was sent to the Elector of Saxony as a present from the King of Spain, whence the entire product of Saxony wool, now of such immense value. In 1809, during the second invasion of Spain by the French, some of the valuable crown flocks were sold to raise money. The American Consul at Lisbon, Mr. Jarvis, purchased fourteen hundred head, and sent them to this country. A portion of the blood of these pure unmixed Merino flocks, is to be found in Vermont at this time. Such was the origin of the immense flocks of fine wooled sheep in the United States.

Southdown Ram---"ARCHBISHOP."

Property of Saml. Thorne, Esq., Thorndale, Washington Hollow, Duchess County, New York. Bred by the late Jonas Webb, Esq., Babraham, England, and selected from his flock, by Mr. Thorne, in 1860. He was winner of the First Prize in the Yearling Class, at the Show of the Royal Agricultural Society at Canterbury that year. His first cost was 250 guineas—$1,250.

WOOL.

Among the lessons of the War, the unexpected deviations of Trade will prove of lasting benefit to the American Nation; for, contrary to many predictions, Trade did quickly accommodate itself, as it always will, to existing conditions, and defy in that way, the trammels which friend or foe would lay it under, either by legislation or piracy. It certainly forms a striking feature, that while from the Atlantic side an over importation of Foreign Wool is reported, of late months, the California Clip was partly sent to foreign markets, or by the way of foreign ships and ports, to elude the clutches of the pirates and save the increased insurance premium, thus making up in those foreign ports the gap created by greater exportation to the United States.

The Boston *Shipping List* of the 18th July, says:

"Manufacturers of Woolen Goods are quite uncertain how to move. The decline in the rates of gold and exchange—the large supplies of foreign now here and expected—all tend to make them cautious in their movements and less willing to submit to the extreme prices at which domestic is held throughout the country. At the same time, desirable goods are sold close up, and the prospective demand is likely to be quite equal to the supply. It is evident that trade in both Cotton and Woolen Goods, and in Cotton and Wool, will remain very quiet until law and order is fully restored in our leading cities, and the effect of our late victories is more fully developed."

FOREIGN WOOL TRADE OF NEW YORK.

The *Journal of Commerce* publishes the following statement of the imports of Foreign Wool at New York for the first six months of the current year, also for the same time in 1862. These tables will be found valuable for present and future reference. The comparison shows the imports of the first half of this year to be more than those of the same time in 1862, by 27,094 bales, 11,509,348 lbs. and $2,081,056 in value. At this time, last year, nearly all the new clip of Domestic Wool had been bought of the growers at 35 to 45c. the latter figures being the price at that date, and Foreign Wools were held at prices which made them dearer than Domestic. But at this date the facts are reversed. The new clip is nearly all held by the grower at 65 to 75c. and the stock of Foreign is offered at rates which make it cheaper to the manufacturer. And as there are few Woolen fabrics which cannot be manufactured from Foreign Stock, but little Domestic will be taken while the present prices remain. The stock of Foreign Wool in this market at the present time, is considerably larger than that of this date a year ago, and it is estimated that the Domestic Clip of this year is fully twenty-five per cent. larger than that of 1862.

Imports of Foreign Wool at New York during the first Six Months of 1862, and for the same Time in 1863.

From Whence.	1862. No. of Bales.	1862. Weight, lbs.	1862. Ent'd Value.	1863. No. of Bales.	1863. Weight, lbs.	1863. Ent'd Value.
England	15,388	5,734,308	$1,041,135	18,902	7,065,474	$1,292,899
Buenos Ayres	4,967	4,384,295	617,298	9,421	8,196,049	1,192,162
France	8,208	3,203,806	451,636	15,152	4,418,399	768,033
Africa	1,679	586,361	121,497	5,933	2,449,363	458,183
Turkey	54	19,285	3,228	2,155	941,319	157,670
British Possessions in Africa	....	....	....	1,817	778,034	150,730
Chili	....	....	....	3,160	757,445	143,643
Belgium	2,561	974,542	151,908	1,081	846,714	140,446
Russia	....	....	....	1,893	790,198	116,251
Mexico	12	2,225	364	1,726	569,148	74,202
Brazil	459	306,790	46,654	573	464,813	64,268
Spain	419	127,313	14,988	749	222,274	35,817
Portugal	207	55,677	6,471	723	133,386	22,219
Bremen	242	111,400	18,236	238	86,340	21,437
Hamburg	293	84,495	14,979	125	67,099	10,292
Tuscany	568	224,228	26,733	161	59,785	9,520
Cisplatine Republic	....	....	....	72	49,659	7,759
New Grenada	621	163,366	17,946	140	26,911	4,855
Dutch West Indies	10	3,300	319	48	20,231	2,725
British East Indies	....	....	....	46	14,746	2,677
China	....	....	....	39	20,844	2,287
Sardinia	561	202,200	26,841	55	15,740	2,033
Gibraltar	332	80,738	13,304	29	8,281	1,059
Malta	....	....	....	6	2,772	666
Cuba	155	92,564	9,634	3	460	46
Central America	339	90,983	11,942	....	....	....
British West Indies	65	39,701	4,568	....	....	....
Montevideo	12	8,211	1,093	....	....	....
Bombay	1	348	49	....	....	....
Total	37,153	16,496,136	$2,600,823	64,247	28,005,484	$4,681,879

An Agricultural Cabinet.

In projecting a permanent enlargement of the JOURNAL, we also contemplate establishing a collection of agricultural and other products of California, which will be placed in one of the rooms of our new office, and be open at all hours for the inspection of every person who takes an interest in the prosperity of the Golden State. The establishment of such a cabinet in the city of San Francisco is one of those things of which most business men will perceive the utility at a glance. It will not only give to strangers, and to resident citizens who seldom go into the rural districts, some idea of the capability of this State in raising produce, but it will also prove of mercantile advantage to every one who is interested in this branch of commerce. With the view, therefore, of carrying this project into effect, we shall be obliged to our readers, and, indeed, to any one, who is public spirited enough to assist us in the enterprise—selecting some of the best specimens of their cereals, wool, hops, and *minerals*, from the different districts of our State, and Washoe; and, indeed, anything in any department of husbandry and science which will prove of interest, in illustrating the growth of agricultural and mineral products of California. The specimens can be taken to any of the September fairs, and as we shall be present at all of them (or be represented by our associate) for the purpose of seeking information about agricultural matters generally, we shall be happy to receive them there.

THE FAIRS.

THE periods appointed for holding the State, County, and District Fairs, during the present season, are as follow:

Northern District—At Marysville, Sept. 7, continuing six days.

San Pablo Bay District—At Sonoma City, Sept. 15, continuing four days.

Santa Clara Valley—At Santa Clara, Sept. 16, continuing four days.

Bay District and Contra Costa County—At Pacheco, Sept. 21, continuing five days.

San Joaquin District—At Stockton, Sept. 22, continuing four days.

Amador County—At Ione City, Sept. 23, continuing three days.

State Agricultural Society—At Sacramento, Sept. 26, continuing five days.

Humboldt County—At Eureka, Oct. 6, continuing three days.

OREGON STATE FAIR.

The Annual Fair, in connection with the State Agricultural Society of Oregon, is announced to commence at Salem, on Tuesday, Sept. 15, and to continue four days. A cordial invitation is extended to the citizens of California and Washington Territory to be present on the occasion.

Veterinary Department.

INFLUENZA IN THE HORSE.

Influenza is a catarrhal complaint accompanied by typhoid fever, assuming, in different seasons, different types, and always tending to involve many different organs of the body. It belongs to an important class of complaints known as the *epizootic*, and exhibiting certain marked characteristics. They extend, at the same time, over large tracts of country, attack, in a similar manner, great numbers of animals, tend to assume a typhoid form, and withstand badly all depletive treatment. They depend upon some general causes, as yet unknown, but which it has usually been thought sufficient to term atmospheric; but are always most common and fatal among animals breathing impure air, densely crowded, badly fed, or exposed to cold winds; and are chiefly prevented or robbed of their virulence, by guarding against such debilitating causes, and maintaining a high standard of general health. Such are the prominent characters of epizootic diseases, of which influenza, pleuro-pneumonia, and murrain, are good examples. The same class of diseases in man is termed epidemic. It is usually most common in the latter part of spring and fall; is most severe and prevalent among young horses and among the common breeds, which do not bear up under this, or indeed under any debilitating disease, so well as those with more breeding. The earliest and most prominent symptom is weakness, soon followed by loss of appetite, shivering, a dry, staring coat, a dull, sickly appearance, hanging of the head, a staggering gait, a quick, weak pulse, quickened breathing, an occasional short cough, with torpidity of the bowels and kidneys. This is the ordinary form of the complaint and has been called, by way of distinction, catarrhal influenza. But the disease, as has been remarked, exhibits considerable diversity of form, according as it involves particular organs more or less severely. Thus, sometimes the liver and other digestive organs appear to participate in an unusual degree; there is impaired appetite, but increased thirst; a short cough, a soft, compressible pulse, usually increasing to seventy by the second day, a yellow, billious-looking appearance of the mucous membranes, and a light colored feces covered with slimy mucus. In these cases, besides the more ordinary post-mortem appearances, the liver, distended with dark blood, is unusually large, soft, and friable, and the intestinal mucous membrane discolored and exhibiting dark brown patches. Again, influenza sometimes shows a dropsical tendency, when the eyelids, legs, and surface of the belly, are covered with diffused, soft, pitting, non-inflammatory swellings. Sometimes it puts on a rheumatic form, when the backs and joints are sore and stiffened; but whatsoever shape it bears it early shows the characteristic weakness, and typhoid fever. When an unfavorable termination occurs, the dullness increases to stupor, the extremities get colder, the breathing more difficult and abdominal, the pulse quicker, weaker, and more irregular, and death occurs from the tenth to the twentieth day. The blood is found dark-colored, slow to coagulate; the muscles soft and of a dull yellow hue; the respiratory mucous membrane covered with bloody mucous which, when wiped off discloses a dark, purple surface beneath; the lungs are dark-colored, and filled with dark, unhealthy, sickly-smelling lymph, the pleural cavities generally contain some serous fluid, and their walls are roughened by patches of feebly coagulated lymp; the intestines exhibit purple spots and are occasionally ulcerated.

Treatment.—Where bleeding, purging, and sedative remedies are heroically practiced, the mortality is great; but where rational medical treatment and good nursing are pursued, the loss should not exceed one per cent. Place the animal at once in a cool, roomy, plentifully-littered, well-ventilated loose box; clothe him lightly, and bandage his legs, and let his clothes and bandages be removed, shaken, and put on again two or three times daily; keep the bowels in good order with soap and water clysters; and avoid all active purgatives, which increase the weakness and typhoid fever. Even when the bowels are costive, never prescribe more than two drachms of aloes supplemented by the clysters. Give in a ball, six drachms of nitre and two of sal-ammoniac night and morning, and, if possible, get the animal to take nitre in his mashes or water. Supply sparingly and often, cooked food, carrots, ground oats and bran, with gruel and cold water to drink. Tepid water is unpalatable and does not quench thirst, and cold water never does harm, especially if allowed to stand for an hour in the animal's box. When the cough or breathing is troublesome, give every three or four hours a drachm each of belladonna and camphor and an ounce of sweet spirits of nitre in cold water; steam the head and rub the throat with soap liniment containing about a fourth part of strong ammonia. When the

flanks lift and the respirations are hurried, apply to the chest, cloths wrung out of hot water, and then a blister. A piece of sheet iron immersed for a minute in boiling water and placed on the part, answers the same purpose and appears to act more rapidly. When the breathing is much disturbed and the animal is not too weak, a few doses of calomel and opium may be tried, or five drops of tincture of acconite with a drachm of extract of belladonna and four drachms of nitre repeated every two hours until six doses are given. Symptoms of returning health should be apparent by the third or fourth day, and consist in clearer eyes, firmer pulse, more equable and natural surface heat, a discharge from the nostrils, and some movements of the bowels. Quickening of the breathing and pulse, coldness of the legs and ears, and increasing weakness, are unfavorable signs and indicate the necessity for more stimulants. Give three drachms each of carbonate of ammonia, camphor, and nitre, with two ounces of ether, in water every two or three hours; a quart of warm ale containing a wine glass full of gin or whisky occasionally; and have the legs and body warmly clothed and well rubbed at intervals. In such cases of prostration, when other remedies seemed fruitless, Dr. McClure (one of the Professors of the Veterinary College of Philadelphia) has obtained the best results by transfusing slowly into the jugular vein about three quarts of blood from a healthy horse.—Jos. C. Higgins, v.s. in the *Newark Mercury*.

CASTRATING ANIMALS--No. 3.

"And now,
Make no delay to geld the males
To number, mark, and dock their tails."

Dryden.

ITS OBJECT AND EFFECTS ON BULLS.

We all know, too well, what will be the form of the male of the bovine genus, when not castrated before he has grown to full size. His head and neck will be very thick and heavy, and his carcass will be much larger and heavier *forward* than *behind*. Besides this, his horns are short and strong, and they possess far greater strength than they would have, were they emasculated. A small bull will master a large ox with ease.

Now here are the good objects to be attained by castration—the better development of desirable points of the animal. Here the *age of the animal* must be taken into consideration, or the object to be secured will not be attained.

The leading idea is to castrate a calf at that age which will secure an equality of good points in a steer or bullock, and to have him no heavier, proportionally, behind than he is forward, and not *too light* either forward or behind. My own rule in this respect—and I think it is correct and in keeping with the ideas of our most successful cattlemen—is, if the young calf is very plump, round and heavy behind, and not very heavy forward, not to castrate him until he begins to spread and thicken up forward. Sometimes I have even allowed a calf to go uncastrated until he was ten or twelve months old. And even then, at the age of four years, he would be better or heavier behind than forward. If a calf appears of a delicate constitution, rather effeminate, he will be too light forward if he is castrated when very young. It will be far better to *not* do it until he is three months old. On the contrary, when a calf appears heavier, proportionately, before than he is behind, in order to make of him a bullock of the most desirable form and symmetry, he should be castrated when he is not more than three or four days old.

Sometimes a good cow will always produce calves that will be narrow or "peaked" behind. Castration at an early age will greatly improve the hind parts. Every young farmer should investigate each of these considerations, and talk with men of experience about them, and observe *the effects* of castrating bulls at different ages.

Another good object to be secured by castration is, to improve the quality of the beef, and to make a bullock tallow well. A bull will not have much tallow in, even when he is very fat. Therefore by castrating them their systems will secrete tallow, not only around the kidneys, but among the lean meat, which is very desirable to make a good quality of beef.

Another object is tractability and quietness. Some times when bulls become three or four years of age, they are dangerously ugly and unmanageable, and will follow the bad example of some men, who run about the neighborhood, having nothing to do, and get into mischief. Remove the cause by castration, and the disposition will be changed.

Although there are several good advantages attending the castration of bulls, there are also some minor points to be lost in consequence of it.

Bulls are usually as fearless as a lion, while bullocks and oxen are often quite timid and skittish. This is usually the effect of castration, and the cer-

tain result is to divest males of fortitude, strength, courage, and fearlessness. We shall allude more particularly to this point in noticing some of the physical effects of castrating colts.

ITS EFFECTS ON SHEEP AND SWINE.

Let us keep the leading idea distinctly in view, that castration is attended with effeminacy and imbecility; but at the same time, there is a very desirable compensation for the losses sustained in the vigor and stamina of the animal, by the superior *form* and *quality* of the animal and his flesh.

Lambs grow faster, their frames are better developed, they make hardy sheep, and they endure the winter better by delaying castration until they are from three to six months old, than to do it when they are quite young.

Lambs that are designed for the butcher should not be castrated at all, as they will not be as large by one-fourth, in many instances, as they would have been or will be by going ungelt. If they are designed for wethers, they will make better and larger ones by *not* castrating them until they are four months old. By allowing them to go ungelt for so long a period of time, their horns often commence growing much more than they would have grown had they been castrated. But this is no very objectionable feature in a valuable wether.

Most farmers castrate their lambs all at one time, whether they are three months or three days old. But whoever will take observations on this point, will see that those lambs that are castrated when very young, are very liable to be more puny and effeminate, especially during the next winter, than those that were not castrated until they were three or four months old.

Sometimes a lamb will not be dropped until late in the season. He will endure the rigors of winter better, and make a larger and more valuable wether *not* to castrate him until the next spring, than he will to perform the operation when very young.

SWINE.—Some men castrate their male pigs when they are only a few days old, while others think it is better to delay it until they are a month or more old. If pigs are strong and healthy, and they are to be fed right along for pork the same season, it will make but little, perhaps no difference, whether they be castrated at four days or four weeks old. But when pigs are to be kept as *store* pigs, simply in a thrifty condition for one or two years to come, they will make more hardy and larger hogs *not* to castrate them until they are about two months old. If they are castrated when very young, their flesh will make a little nicer pork than it would if that operation were delayed any considerable length of time.

Young farmers frequently ask, "why the flesh of a boar that is from one to four years old, will not make good pork?" The flesh of such animals is usually coarse and brawny; and sometimes it will require double the amount of feed to fatten them that is necessary to fatten a barrow.—S. EDWARDS TODD *in Country Gentleman.*

The Hamburg Agricultural Exhibition.

IN A recent number of the Journal, in an article upon Alpine Cattle, we alluded to this exhibition, which was opened to the public on the 14th of July without any formality, except music from a brass band of thirty performers. Visitors were indemnified, however, by a promenade over the premises, and by an inspection of some magnificent specimens of both the animal and vegetable kingdoms, and also of mechanical skill and industry. Numerous flags, of all nations, waved a welcome to the thousands of spectators who poured in from all directions and who helped to enhance the impression which they had previously received from the decorations of the edifice.

The exhibiting space occupied a length of 2,200 feet by 1,500, and contained thousands of articles, sent by 1,492 exhibitors from all parts of the earth, and put up with so much system as not to interfere with each other.

During the first day, there were 10,000 visitors, 11,000 on the second, and a still larger number on the third, all of whom united in one voice of praise at the excellence of the arrangements made by the committee.

The most interesting collection of agricultural produce was that of the Hungarian Agricultural Society, which was distinguished by its variety and its beauty, and was arranged in the most attractive and tasty manner. The wines, of course, occupied the most prominent position, and received the most unqualified praise of the examining commissioners. Among other Hungarian produce, there were some specimens of ripe cotton in the pod; and, also, of the plant itself—a remarkable proof of the fertility of the soil, and of the mildness of the climate of that country. Not less than 455 kinds of wines—including red, white, and sparkling—were exhibited by 160 exhibitors, thus affording abundance of vari-

ety for the gratification of the most fastidious taste. The yearly productions of Hungary and the adjoining provinces is rated at 8,000,000 barrels of the best qualities. This could easily be increased, and as the total production reaches abont 60,000,000 barrels, it leaves a very large surplus for exportation. The prices are remarkably cheap—the best table wines selling at from thirty to sixty cents a gallon, and ordinary good wines, as low as even half that price. The Agricultural Society, justly appreciating the interests of the country, have entered into an arrangement with a house in Hamburg, in order to warrant the wine dealers and consumers an unadulterated article. There was such a demand for the wine exhibited that there was scarcely any left for sale by auction at the close of the fair.

Among the machinery, Philipson of Berlin exhibited a California pump, which attracted considerable attention, as it combined several advantages over the many others which were exhibited at the fair. With its oblique position, easy access to the valves, and its double action, a continuous stream was obtained.

An American molding machine, and one for cutting down trees, were not put in motion, and therefore neglected. Several other American machines, such as those for washing and wringing, were exhibited which admirably illustrated the inventive spirit of her people for turning machinery to everyday use.

According to the catalogue, thirty-four States exhibited 3,876 animals and 2,441 machines and tools, England taking the lead in the latter. Of horse plows, the premiums were awarded to a Howard and a Hochheimer (model farm of the king of Wirtemberg.) The Swedish and American plows could not be properly tested, owing to the absence of proper plowmen.

We are indebted to our German cotemporary, the *California Democrat*, for a very elaborate report on the Hamburg Fair, from which we condensed the above.

Abortion in Cows.—There is evidence enough to show that abortion in cows is often caused by the plant called the Cardinal flower—*Lobelia cardinalist* of botanists. It is called "slink weed," by many. Several cases of abortion have occurred here this season, which it is thought were caused by the cows eating this plant in their hay.—*Exchange.*

Nottingham.—There is not much change in the lace trade. In hosiery very little alteration.

THE WOOL TRADE OF CALIFORNIA.

We have condensed from Eastern papers, information that will interest the sheep raisers and wool buyers, whose prospects are all they could possibly wish. We have been shown also, a sample of *Russian* Wool, such as is exported from Southern Russia to Boston and New York. The staple measures from nine to twelve inches. Its *Market* description is "Fine Washed," costing from twenty to twenty-five roubles a pood of forty pounds. (Laid down in New York, duty paid, above fifty cents a pound.) Any one wishing to see it, will please apply to us.

Messrs. Christy & Wise have favored us with their *Wool Circular* for this month, from which we extract the following:

Last year this State produced 6,400,000 pounds of Wool, an increase of forty per cent. over the year 1861; but the increase this year will not be so large owing to the unprecedented drought of last winter, in consequence of which, the flocks have yielded very light fleeces.

Receipts of Wool from January 1st to September 1st, 1863.

	POUNDS.
California, estimated	4,686,779
Oregon	54,200
Sandwich Isiands	67,400
British America	19,934
Total Receipts	4,828,313
Total Export and Consumption	4,628,313
Balance on hand, say	200,000

Shipments from January 1st to September 1st, 1863.

New York, per Steamer	1,021,713	1,957,030 lbs.
" " Sailing Vessels	935,317	
Boston	1,330,741	
Liverpool	13,803	
Hongkong	1,739	
		3,303,313
Home Consumption, Mis. Wool. Mills, est'd	825,000	
San Francisco Factory	500,000	
		1,325,000
Total		4,628,313

Prices Current from January 1st, to May 31st.

Merino	26½ to 28 cts.
Half Merino	25 to 26½
American	23 to 25
Half American	22 to 23
Mixed	20 to 22

Prices Current from June 1st to August 31st.

Merino	24 to 26 cts.
Half Merino	22 to 24
American	20 to 22
Half American	18 to 20
Mixed	16 to 18

Averaged Prices in New York from 1853 to 1862, inclusive.

1853	52¼ cts.
1854	42¼
1355	35½
1856	43½
1857	48½
1858	39½ cts.
1859	54⅞
1860	48
1861	40
1862	54½

Our first consignment reached market early in March—a fair lot of American Wool—which was readily taken at 24 cents, and the market advanced to the limit in our quotations, though few sales were made above 26½ cents, and continued active and buoyant until the first of June, at which time there was a sudden decline for all grades, on account of the discouraging reports from New York; and for more than

six weeks there was scarcely a transaction. Since that time the Wool Market has been more animated, though still inactive compared with the early part of the season.

It will be observed that in 1859 Wool was higher than in 1861; and if we take into consideration the "premium on gold," Wool was as high every year during that period unless the year 1855 was an exception. This appears strange, and we can only attribute it to the large importations of Foreign Wool, more especially the cheap grades from South America and other places which reduced the average. But we do not think this can occur again; for the present tariff furnishes increased protection to the home producer, and Foreign Countries will doubtless be less able to export so largely owing to the very limited production of Cotton and the necessary substitution of Woolen for Cotton goods for their own domestic use.

In round numbers, we consumed in the United States last year	126,000,000 lbs.
And produced	60,000,000
Deficit supplied by Foreign Importation	66,000,000

The consumption this year must be as large as last, and if our Foreign Importations fall off as we anticipate, we may reasonably hope for excellent prices in the Atlantic Markets this fall. Another, and the most important deduction may be drawn, even should the present extraordinary demand for Wool cease by the termination of hostilities, we need fear no great depression in the Market, at most it could only be temporary, for during *the present extraordinary demand*, prices have only advanced nominally, and our production is by no means adequate to our wants. Sheep Husbandry cannot therefore be overdone for years if ever, and Wool must continue to be a profitable crop.

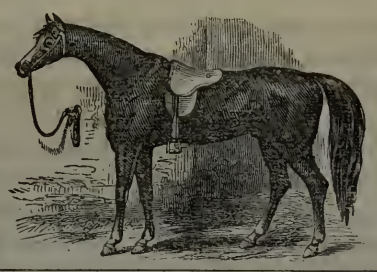
Hides and Tallow.—Two Slaughtering Establishments for Hides and Tallow are in operation, one in Montery County, and the other in San Luis Obispo County, and a third on a very extensive scale in Santa Barbara County will soon be completed.

Hides have been dull during the year, the result of a very heavy stock in New York. Present quotations from 12c to 13½c.

Tallow is governed entirely by Eastern and Foreign Markets: late European reports are discouraging and may be quoted from 6 to 6½ cents, choice lots 6¾ cents.

Goods for the State Fair.

The California Steam Navigation Company have announced that they will convey goods to and from the State Fair at Sacramento, free of charge to exhibitors, upon their producing a certificate showing that they had entered them for competition. Parties sending goods to the Fair will, in the first place, be required to pay freight upon them; but on receiving them back again, and producing the certificate of exhibition, the money will be refunded. This is as it should be; for on many previous occasions, the good nature of the Company was abused by persons who took goods to the Fair and sold them, thus defrauding the Company out of the cost of freight, under the pretext that they were taking them for exhibition. At the coming State Fair, however, this contemplible fraud will be prevented.



On Breeding and Rearing Horses in California—No. 6.

I now come to the subject of breeding horses for heavy and slow draught, and I think that no kind of horse will be found so remunerative to the breeder, nor so quickly and easily saleable as good, large draught horses, provided they are properly bred, and properly fed, and cared for until grown to maturity.

In my prefatory remarks, I have alluded to the necessity of considering the capabilities of the farm before concluding what kind of animal to raise upon it, and no description of horse will disappoint more completely than the large draught horse, if it be attempted to bring him up on insufficient or unsuitable food. No mountain pastures, or bare, scrubby ranges will bring to perfection that large expanse of bone and muscle; he must eat from foalhood to his full growth, plenty of the rich, succulent grasses of the alluvial plains, and in winter, reasonable shelter and good hay must keep him always growing; but his work in breaking will repay his breeder for this, as the work of the farm, the slow, steady draught of the plow and harrow, which he learns there, is to be the business of his life, and instead of time being lost breaking him in, after a few lessons he is earning money for his owner.

We have in California specimen stallions of nearly all the celebrated breeds of draught horses. We have the Suffolk Punch, the regular English Dray Horse, the Clydesdale, the Norman, and various crossbred animals, offshoots of these breeds. For agricultural purposes in California, I do not think these breeds so profitable or so suitable as a smaller, more active horse; in short, the slow ones of the quasi "Morgan," or as I call them, Vermont Roadsters, would be what I should select as most suitable for the farmer's general use in this country; but in the cities it is that these heavy draught horses are wanted, for the drays, the unloading of ships, lumber hauling, and such like, and crossed upon the right sort of mares, any of these breeds will produce most valuable horses for such purposes. If I have a bias

in favor of any one, more than another, it is towards the Clydesdale, as I have always considered that breed as manifesting much greater quickness and activity than the Suffolk Punch or the Dray Horse of England; but in our cities there are to be seen splendid specimens of American bred horses, large, active, clean-legged draught horses, of a most excellent class, but of what particular breed, or where raised (if they come from any particular locality), I have failed to inform myself. A cross of the Clydesdale on the mares of this class would probably result in a better animal in some respects than either, that is, for the uses of this country. Their produce would probably have thicker middles, shorter legs, and more weight for the collar than the American mares, whilst they would lose the hairy fetlocks, and have a neater, cleaner look all over than the Clydesdale, in fact, more like what we call a farmer's horse in this country.

I have met in California many people who are in favor of crossing our common native, or mustang mares, with these large draught horses; in fact, I understand the importers of the Clydesdale stallions brought them here with this very end in view, and are now testing the thing, but some time must elapse before a conclusion can be arrived at. California is a country replete with contradictions, and I therefore hesitate in affirming that such an experiment, although strange, and contrary to previous established principles, may not answer here, in the novel circumstances of changed climate and treatment, but upon general principles current among breeders, it is laid down that a small female has not the capacity within her to nourish properly during gestation the fœtus of a disproportionately large male, and that the produce of such an union will, in most cases, turn out very deficient in some essential points, whilst in others it will be as much overgrown and disproportioned. I have, however, been shown several horses said to be got by large, heavy draught horses out of California mustang mares, and I must acknowledge they were far better animals than I should have supposed possible to result from so abrupt a cross; nothing handsome or stylish about them, certainly, but still, useful common horses for general work. Another objection to breeding this cross will, I expect, consist in the wide natural difference in both temper and temperament of the two breeds, but of this we cannot judge until more extensive examples have been before us of the crossbred animal. Regarding heavy draught horses, there is little to say of a particular nature; regarding the breeding of them, the same general principles apply, and must be attended to, as in propagating all other kinds, and above all, that of having the sire a pure bred draught horse, for a long line of generations back, is paramount. Occasionally may be found some great hulking brute, seventeen hands high, got by chance out of some scrubby little mare, which, by a freak of nature, or Californian monstrosity, has grown into unprecedented size and weight; and the happy owner gleefully announces his intention of keeping him for a stallion. But of all such bastards it is to be hoped that farmers will beware, or they will have, as they *have* had in many instances, reason to regret that they have not more particularly examined about the *dam*, as well as the sire, of the stud horse they have used.

ON BREEDING HORSES.

The readers of the essays on the "Breeding and Rearing of Horses in California," which have appeared in the Journal for some months past, cannot have failed to notice the severity with which the writer, in our last number, dwelt on the impositions practiced by some owners of stallions on the confiding farming community. And we think justly so. But the main question will be how to avoid the difficulties which lie in the way and to accomplish the object which we have in view—the production of pure stock.

As long as it possible for owners of breeding stock to *buy* premiums at the fairs, for specimens exhibited by them, which we, alas! *know* to be the case, we cannot see an escape from such impositions. If the judges who condescend to accept bribes of from twenty to forty dollars would but seriously reflect what an incalculable amount of injury they are doing to the community and their country at large, they surely would repudiate, with indignation, any amount, however great, that may be offered for a favorable opinion, no matter by whom. But where is the remedy? Probably in such a course alone as has been forced by practical experience on other communities in which farming constitutes the principle national occupation. Thus, for instance, we find in several States of Continental Europe, which stand at the very head of theoretical and practical farming, that the breeding of horses has been turned, by legislation, from private enterprise to a governmental institution. The owners of stallions are only allowed, as far as we know, to use them for breeding

from mares of their own. A number of the best blood horses of *various* breeds are owned by the government, and distributed all over the country at convenient distances, during the breeding season. The farmers in the vicinity bring their mares to the breeding stations, and can select the horse of their choice, *assisted* by the experience and superior knowledge of the property by trained government officials in charge. Those officials are disinterested as to the pecuniary result, but their honor and advancement are at stake in *not* producing the best breeds within their respective districts. The farmers have to pay a mere trifle, in the shape of feed, to the government stables for each covering. Thus the whole system has been placed on a broad, *national* basis; and in this manner a correct and faithful record is within the reach of intending purchasers—a very serious item in times of war, when horses of a certain size and quality are wanted. At the same time that the breeding of horses, all over the country, remains under the fostering supervision of the government, reliable statistics are at hand, and a wholesome check is exercised on all exhibitions at fairs. Stubborn facts have proved that within a couple of decades inferior breeds of horses have disappeared from whole districts, and the same quantity of feed consumed by them maintains now an equal number of horses, which in consequence of improved quality, represent even triple the amount of value to the owners, and through them to the country at large.

It stands to reason that a government, as such, can go to an outlay for importing and maintaining a breeding stock quite out of the range of private individuals. Want of space, however, prevents us from enlarging on this topic; but we hope we have pointed out, sufficiently, the importance of the judges at our fairs *not* turning their duties into a disgraceful *trade*, and betraying a trust, greater than which, is not reposed in even the highest officials of the State, seeing that their decisions have a bearing for years to come.

CLEANING SEEDS.

The importance of clean seeds of all kinds, is seldom appreciated. Too many farmers allow their grain and grass seed to become mixed with seeds of various species of pernicious plants, which being sown, not only lessen the crop it is wished to cultivate, but deteriorates its quality. By a little attention to cleaning all kinds of seeds, foul plants might to a great extent be got rid of. Some readers may recollect the statement of John Johnston in regard to eradicating chess from his wheat. He was very careful to have his seed wheat separated from every foul seed for several years, until a plant of chess on his farm could scarcely be found. Our attention was called, not long ago, to some wheat which was offered for sale as seed. It was mixed with fine, foul seed, and had among it many small and imperfect grains. If it had been properly cleaned, the best of it would have been worth double the price it sold for.

We have several times noticed various contrivances which Sandford Adams, of Boston, has invented for cleaning seed. He has lately constructed a winnowing mill in a manner somewhat different from anything of the kind before made. We will not attempt a description of it, but merely state some facts in regard to what it will do. It is so constructed that by changing the sieves, in connection with some other modifications, almost any mixture of seeds can be separated, and each kind deposited by itself. As an example, we may mention that he received 326 bushels of what was called rye. It had been bought for making coffee; but as some ergot was seen among it, the purchaser concluded to have it cleaned before offering it for sale.

Mr. Adams put it through his new mill, and obtained 306 bushels 37 pounds of clean rye; 21 bushels 20 pounds of heavy oats; 6 bushels 23 pounds shriveled rye and oats; 1 bushel small, black, worthless seed; half a bushel of peas; 2 bushels 27 pounds of chaff; half a bushel of sticks and rags, and 8 pounds of pure ergot, which was sold to a druggist at $1 50 per pound. It will be seen that the measure of the separated artices somewhat overran the original mixture, which is accounted for, chiefly, by the mixture of the articles being reckoned by weight, the standard for several of the lighter articles being less than that for rye.

In another case, 173 pounds of foul seed and chaff were separated from 4,702 pounds of flax seed. In another case, a large lot of mustard from California was found to be in such a condition that it was unmerchantable. Mr. Adams put 28,992 lbs. of it through his mill, and turned out 27,829 lbs. of mustard so clean and nice that it was shipped to England. The refuse consisted of foul seed—a great portion of which was thistle seed—dust, chaff, etc.—*Boston Cultivator.*

The Union State Ticket is elected by about twenty thousand majority.

The Prizes at State and County Fairs.

We would direct the attention of our readers to an article on the "Breeding of Horses," which will be found on another page. The writer very properly takes to task the "Judges" of Stock, etc., at fairs, who allow their decisions to be influenced by bribes. There is no use in mincing matters, we know that bribery exists, and we feel it our duty to speak out, and to enter our *emphatic protest* against it. Let not so-called "Judges," fancy that they deceive the public. They deceive no one but themselves; for in giving unjust decisions, they render their corruption and dishonesty as apparent as the noon-day sun. Not only have they inflicted a great injury upon the community, but we know many of the best farmers in the State *who will not offer their produce for exhibition*, because they well know that, *unless they bribe some of the Judges*, they will not receive a premium. now this will never do; it is a state of things which every honest man ought to discountenance. If we are to have fairs, let us see that the premiums *are* given to those only who exhibit really the best specimens, and not to those who offer for competition nothing but third or fourth rate articles; and in order that that may be the case, let us have none but men of honor and integrity appointed to the offices of Judges.

PHŒNIX, OF HARTFORD.

We refer with pleasure to the card of this conservative and national Company, on the back of this number. The Phœnix Insurance Company, of Hartford, Connecticut, is one of the oldest and most reliable in the country, being carefully managed by honorable and capable officers of extensive experience. None but good risks are taken by this Company, its motto being "Quality not Quantity," therefore those who insure with the Phœnix can always rely on protection of the first order.

The Phœnix, it will be noticed, has established a "branch office" in San Francisco—the only one on this coast—under the supervision of Mr. R. H. Magill. This gives the Company permanency. The investment of $50,000 in California securities, and investing of income premiums in like manner, make the Phœnix a "home institution," while the establishing of full agencies in the different cities and towns in the State is of great importance to the insuring public, who, we have no doubt, will readily and fully appreciate the facilities so offered, by patronizing the Company.

Mr. R. H. Magill, with his brother, under the firm of R. H. & H. M. Magill, General Agents, have controlled and supervised the business of this Company, for many years, in the Western and Southern fourteen States and Territories, from Cincinnati, where they built up a large and healthy business, and made "Phœnix" a household word. Benefiting by his extensive experience in the business, Mr. Magill takes up his residence here for the purpose of placing the Phœnix in the position it merits on the Pacific slope, and being clothed with full powers in the premises, we have every reason to believe the "Pacific Branch" of the old Phœnix of Hartford" will yet rival the "Western Branch" at Cincinnati, which is now conducted by Mr. Magill's brother.

The Phœnix publishes and distributes semi-annually a *sworn statement* of its affairs, so that all can know what the Company founds its contracts on. This is an important matter to be considered by those desiring insurance, inasmuch as some companies formerly represented in this country, and which boasted of big capital, not giving statements of what they were composed of, came up missing and defrauded many of our citizens out of their honestly paid premiums. Patronize the Company that "shows its hand," and you are sure of the security you bargain for. The Phœnix is that Company. Mr. L. B. Dell, so long and favorably known in Benicia, has now taken up his residence in San Francisco, as the *Resident Agent* for the Company, at their branch office in Commercial street, where his many and numerous friends can find him, or be waited upon at their place of business, or residence, as he attends to all city business for the Company. *

Acknowledgments.—Received from A. Roman & Co.: *The Natural Laws of Husbandry*—by Justus Von Liebig—edited by John Blythe, M. D., Professor of Chemistry in Queen's College, Cork.

In this work Baron Liebig has given to the world his natural views of the science of agriculture, after sixteen years of study and experiment. The theory he upholds is that known as the "Mineral Theory," according to which it is maintained that the food of plants is of an organic nature, and that every one of the elements of that food must be present in the soil for the proper growth of a plant, and that in its abundant or scanty supply, in physical combination, does the fertility or sterility of the soil depend. How this equilibrium is to be maintained and a true obedience yielded to the natural laws of husbandry, the learned author shows in a manner which cannot be disputed. In farming operations in the United States, comparatively little regard has been paid to this subject; but unless the laws of nature are carefully studied and obeyed, we maintain that the agriculturalist cannot be as successful as he might and ought to become. We cordially recommend the work to our readers.

Herd Book of Thoroughbred Neat Stock. Hartford, Ct., Williams, Wiley & Waterman—Received by mail from the Publishers.

This work, as its name implies, is a record of the pedigrees of some hundreds of Short Horns, Ayrshires, and Devons, bred and owned by farmers of the Eastern States. The utility of such a record to breeders of cattle, is so obvious, that it requires no eulogium from us. It is sufficient to say that it has been compiled with great care; and as no pedigrees of doubtful character have been admitted, it will prove of lasting value to those for whom it is designed. The work can be seen at our office, and subscriptions received for the same.

FULL BLOOD FRENCH MERINO SHEEP,

Property of SAMUEL BRANNAN.

The Best Wool Stock ever Imported into this State.

Fifty Full Blood French Merino Rams For Sale,

Apply to S. BRANNAN, 420 Montgomery Street, San Francisco; GEO. A. JONES, Brannan's Rancho, Feather River, Sutter Co., opposite Nicholaus; or JULIUS WETZLAR, on Fourth Street, between J. and K, Sacramento.

CALIFORNIA SHEEP SHEARING FESTIVAL,

Held at Marysville, May 6th, 1862, under the Direction of the

Northern District Agricultural Society.

BUCKS, ONE AND TWO YEAR OLDS.

	Weight of carcase after shearing.	Weight of wool.		Weight of carcase after shearing.	Weight of wool.		Weight of carcase after shearing.	Weight of wool.		Weight of carcase after shearing.	Weight of wool.
1	110	25	6	122	30½	11	114	21½	16	129	24⅓
2	127½	32	7	161	24½	12	164	25½	17	154	29
3	133	25	8	121½	23	13	119	28½	18	106	23½
4	114	25	9	128	25½	14	134	21			
5	119	25	10	124	21	15	124	21½		lbs. 2304	lbs. 451½

General average of Wool of Bucks, 25 lbs. 1 oz.

☞It is no more expense to raise a fine Sheep than a poor one.☜

To Advertisers and Wool Dealers.—We would call general attention to the facilities offered by our Journal, as a most desirable advertising medium, for making known all branches of business, as our circulation is now larger than at any season of the year, and reaches a more extended class of readers, in the Agricultural portions, than any other Journal in the State. Those especially engaged in the Wool trade, or who may wish to become known to the Wool interests generally, will find it to their interest to make themselves known, as our subscription list embraces nearly all the principal growers and dealers, making it the best medium in the country.

Prize Essays.—It is our intention shortly to offer prizes for the best Essays, on Horse Breeding, on Stock Raising, on Wool Growing, and on Grape, Tobacco, Hemp, and Cotton Culture, and in all probability, on several other subjects connected with the Agricultural interests of California. As soon as the proper arrangements are made, the value of the prizes, and the conditions on which they will be awarded, shall be publicly announced.

Farmers, Make a Note of It.—We would call attention to the advertisement of Singer & Co.'s Sewing Machines in this number. We have witnessed the "Letter A Transverse Shuttle Machine" operate upon every variety of fabric, from the finest texture to heavy beaver cloth, and was astonished with the rapidity with which they execute hemming, felling, braiding, and gathering. In fact, the improvements lately added to this machine enables the operator to do this class of work as rapidly as plain sewing. We recommend these machines to the farmer who wants to clothe his sons and daughters, and "men servants and maid servants," economically. There are no persons more in want of Family Sewing Machines than the farmers of California. Next in importance to feeding a family, comes the clothing of a family. The farmer uses labor saving machines to cultivate and harvest his crops. If he does this to get bread, why not use the best labor-saving Sewing Machine to clothe his family? There is as much economy in one case as the other, and if the farmer has a big family, more too. S. & Co. furnish all who may address them with a neat little pamphlet in reference to their machines, also a price list and specimens of work done by their Family Machines. *

Saxon Merino Wool.—We have been favored by Eugene Sherwood, Esq., of Sausal Rancho, Monterey County, with two boxes containing samples of Saxon Merino wool, from bucks and ewes, of all ages and grades, grown by him at his well known ranch, of which a mention was made in our July number. These splendid samples can be seen at our office, and are well worth inspection by those interested in the growth and production of this important staple in California.

Menlo Park, San Mateo Co.

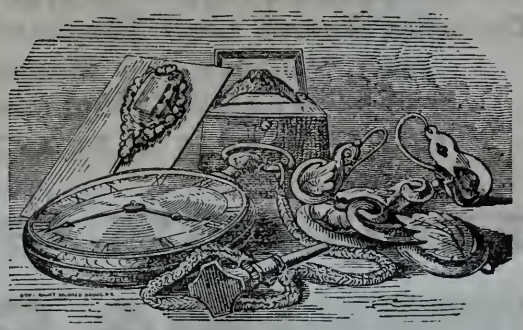
Those who are looking for a home in the country, are earnestly requested to go and look at this choice property. As an investment, it is worth the attention of every one who desires to invest safely and profitably, as it will surely enhance greatly in value as soon as the cars commence running, (which will probably be in October.)

We have been requested to state, that corner posts have been set, with sign boards, designating the names of avenues, so that parties can locate any particular lot, by taking a lithograph map with them. These maps can be obtained at A. G. Randall & Co's, 542 Sacramento street, who will also furnish all necessary information.—See advertisement.

Those who are fond of *Stewed Terrapin*, *Oyster Stews*, and good suppers, will please remember that Capt. Harkness furnishes those and all other luxuries, at the well-known Cropper Saloon, corner Second and Tehama Streets.

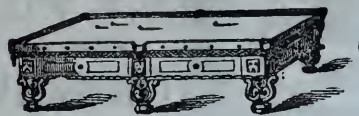
California Wines.—Messrs. Hobbs, Gilmore & Co., have the following variety of Wines, in their cellars, corner First and Market Streets.

California White Wine, Angelica Port, for family use, Sherry, Mound Vineyard, California Brandy, Wine Bitters, Wine Vinegar, of the latter, a good stock on hand for family use. *



J. W. TUCKER & CO.,
CHRONOMETER AND WATCH MAKERS,
And dealers in Diamonds, Jewelry, Silver Ware, etc.,
505 MONTGOMERY STREET, - - SAN FRANCISCO.

Interested in the Manufactory of Watches and Movements at Neuchatel, Switzerland, Tramelan, Switzerland, and at Liverpool, England.
Watches cleaned and repaired by experienced workmen. Diamonds reset, and Jewelry manufactured to any pattern.

G. E. PHELAN. M. E. HUGHES.
PHELAN & HUGHES,
AGENTS FOR
PHELAN'S MODEL BILLIARD TABLES,

PATENT
COMBINATION
CUSHIONS,
ETC.
FOR CALIFORNIA & OREGON.
Nos. 724 and 726 Montgomery Street,
Between Washington and Jackson, SAN FRANCISCO.

HAYWARD & COLEMAN,

IMPORTERS AND WHOLESALE DEALERS IN

LAMPS & OILS,

No. 414 FRONT STREET,

Front Street Block, - - - - SAN FRANCISCO.

Are now receiving and will keep constantly on hand the most extensive assortment ever offered in San Francisco, of

FINE PARLOR LAMPS,

CHANDELIERS, SUSPENDING LAMPS,

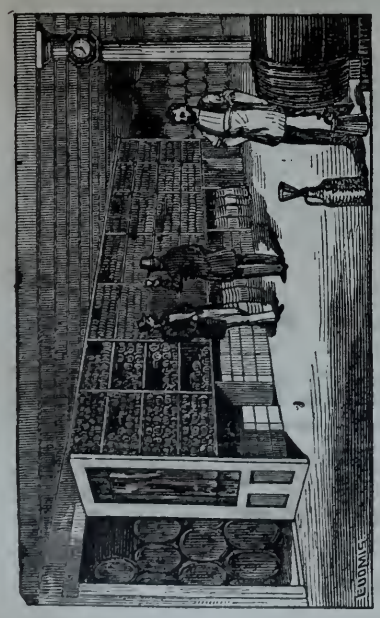
Side Lamps, Bracket Lamps, Hand Lamps, Table Lamps, Lanterns, Globes, Chimneys, Founts, Burners, Wicks, Shades,

OF EVERY VARIETY OF SIZE, STYLE AND PATTERN. ALSO Kerosene, Sperm, Lard, Elephant, Polar, China Nut, Neatsfoot, Linseed, Tanner's and Machine Oils, Spirits Turpentine, Alcohol, Camphene, Burning Fluid, etc.

OF SUPERIOR QUALITY.

A. HAYWARD. A. N. COLEMAN.

HOBBS, GILMORE & CO.



MANUFACTURERS OF

BOXES,

Market Street,

Bet. Beal and Main, **San Francisco.**

All Boxes made at our Factory are manufactured from the best quality of Seasoned Lumber. For Sale, Mahogany, Spanish Cedar, and other Fancy Woods.

AGENTS FOR

B. D. WILSON'S

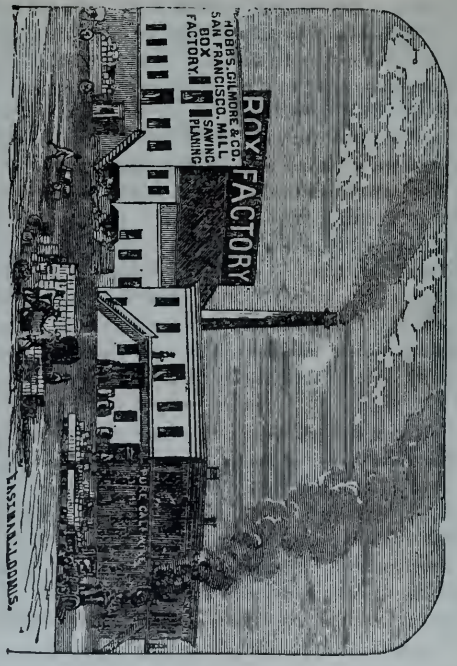
NATIVE

CALIFORNIA WINES

LOS ANGELES,

Cor. Market and First Sts.

SAN FRANCISCO.



SAMUEL A. SANDERSON,

IMPORTER AND DEALER IN

CHINA, GLASS AND EARTHENWARE,

Silver Plated Ware, Cutlery,

JAPANESE TRAYS, Etc.,

810 and 812 Battery St.,

Corner of Commercial.....SAN FRANCISCO.

☞ Goods as above, constantly received from the Manufacturers and sold on the lowest terms by piece or package. Goods repacked for country trade.

S. P. CHRISTY. JOHN H. WISE.

CHRISTY & WISE,

Agents for Wool Growers,

And Commission Merchants for the Sale of

HIDES, TALLOW, Etc.

Office in Cogswell's Building,

No. 610 Front Street, bet. Jackson and Pacific,

SAN FRANCISCO.

REFERENCES:

DANIEL GIBB & CO. STEVENS, BAKER & CO.
DONAHOE, RALSTON & CO. C. ADOLPHE LOW & CO.

DR. A. F. COOPER,

VETERINARY SURGEON,

—AND—

HORSE SHOER,

326 and 328 Bush Street,

Bet. Montgomery and Kearny,

SAN FRANCISCO.

Where all diseases of the Horse and other animals will be treated with great care and skill, under a new and scientific principle. Also, Shoeing will be executed in the very best manner possible and with despatch. All orders promptly attended to at any part of the city or county.

New Veterinary Hospital,

Conducted upon entirely New and Scientific Principles.

A Grand Chance for Investment or Exchange for City Property.

800 ACRES OF FINE LAND, UNDER A HIGH STATE OF CULtivation, title perfect, will be sold or exchanged in lots to suit purchasers, from twenty-five acres upward. There are on the above premises a never-failing stream of pure water; also, four good Wells, and a fine hard finished Dwelling House, containing eleven rooms; a large Barn, Corrals, new Granary, and other out-buildings; a fine Orchard, containing a choice variety of Fruit Trees, and about four acres of Ornamental Trees; a large variety of Grape Vines, and a choice collection of Flowers.

The above premises are within one mile of Mare Island Navy Yard, and the town of Vallejo, on the Napa road in Solano county, and is one of the finest and healthiest locations in the State, the land having never yet failed to produce good crops.

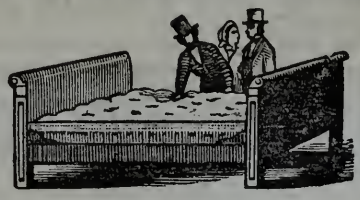
The above property will be sold on the following terms: One-third of the purchase money to be paid at the time of sale; the balance in one, two, three and four years, with interest at one per cent. per month.

For further information inquire of, or address, Mr. L. B. DELL, at the Branch Office of the Phœnix Insurance Company of Hartford, corner of Montgomery and Commercial Streets, San Francisco; R. BRACKET, Pacheco, Contra Costa County; or H. HANNIBAL, on the Premises.

J. & C. SCHREIBER,

—— DEALERS IN ——

BEDS, BEDDING,



—AND—

FURNITURE.

WE HAVE ALWAYS ON HAND THE BEST AND LARGEST Stock of these goods—the best Curled Hair Mattresses and Spring Beds and Bedding of every description. Also, Knotted BED SPRINGS of every size, CURLED HAIR, MOSS, TOW, BED LACE, Live Geese FEATHERS, Spring and Mattress Twine. Also, Ready Made BEDTICKS, SHEETS and COMFORTERS of all sizes. We have also constantly on hand,

PULU.

Which will be sold in lots to suit, at prices defying competition, at

Schreiber's Pulu and Bedding Depot,

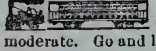
No. 406 Sansome Street, near Sacramento Street.

N. B.—SCHREIBERS are never out of PULU.

Menlo Park, San Mateo County.

Beautiful Sites for Villas!

In Tracts to Suit Purchasers.



Comprising "Menlo Park," 600 acres, and the "Briceland Tract," 220 acres. Title perfect, prices moderate. Go and look at it, and apply for further particulars to

A. G. RANDALL & CO.,
542 Sacramento Street, San Francisco.

Notice to Wine Growers.

YOUR ATTENTION IS CALLED TO A NEW MACHINE FOR Tearing and Separating the Stems from Grapes. You will find it the best Machine for that purpose there is in the country. One man can do more work with this Machine than three men can do with any other. You can work it either by hand, horse, or steam power. Call at the Vulcan Forges Machine Shop, 32 Sutter Street.

L. P. GARCIN,
Constructor of all kinds of Machinery,
San Francisco.

THE PEACEMAKER

COOKING STOVE.

THIS CELEBRATED STOVE, OF WHICH ALL who are lately from the East have heard so much, is now for the first time introduced on this coast, in all variety of sizes and styles.

The Peacemaker is entirely new in principle as well as arrangement, and is one of those

NOVEL COMBINATIONS

of utility and convenience so characteristic of American skill.

The New York *Reformer* says of this

NOTABLE INVENTION,

"By a new arrangement of the Fire Box, Flues and Hearth, a great economy of fuel is attained, while the surface and capacity of the Stove is nearly doubled. The Broiling and Roasting Chamber is, perhaps, the most noticeable feature of this remarkable Stove. There has never been, to our knowledge, any arrangement for this purpose entirely satisfactory in its operation. The coals are here dumped directly into the Hearth, and the draft is so arranged as to keep them in constant glow, carrying all the smoke into the flues of the Stove. The Broiling Chamber is also provided with a set of Hooks and Spit, securing the inimitable roast of the famous old Dutch Oven. The design is chaste and beautiful, while the fittings and finish are most accurate and perfect. In the infinite variety of transformations to which iron is subject, we confess to have never seen a greater triumph of Mechanical art than in the beauty and skill of this Queen of the Kitchen."

Clergymen supplied at a liberal discount.

Water Backs and Reservoirs furished when desired for city trade.

Responsible agents wanted for every town in the State.

Apply to A. P. BRAYTON & CO.,
New Brick Block, 128 Sansome Street, near Pine,
Sole Agents for the Pacific Coast.

CLARK & PERKINS,
COMMISSION WOOL MERCHANTS,
N. E. Corner FRONT and CLAY STREETS,
UP STAIRS,
SAN FRANCISCO.

Wool Bags, Wool Twine and Shears furnished to order. Libeeral advances made on consignments of Wool.

PURE CONCENTRATED EXTRACT TOBACCO, CONTAINING ALL the efficient properties of Tobacco, in a concentrated form, convenient for use, and a *sure and safe cure for Scab* and other parasitic insects that infest the Skin and Wool of Sheep. This preparation softens and cleanses the skin and promotes the growth and appearance of the Wool. For Sale by CLARK & PERKINS,
Cor. Clay and Front Streets, San Francisco.

WM. P. TAAFFE,
Importer and Jobber of
STAPLE AND FANCY
DRY GOODS
CARPETS, DUCK, Etc.
Cor. Front and Sacrameto Streets,
SAN FRANCISCO.

EUREKA SOAP.
The BEST Chemical Olive Soap
IN THE MARKET.
Office, 207 Sacramento Street.
For Sale Everywhere.

EUREKA SOAP
WILL WASH WHITER, LAST LONGER AND GIVE better satisfaction than any Soap in the Market.

1863-4. 1863-4.

NEW STYLES. NEW STYLES.

—LAMOTT,—
HATTER,
37 J STREET, NEAR SECOND, SACRAMENTO,
ISSUES HIS FALL AND WINTER STYLE OF HATS
On Tuesday, August 25th, 1863.

ALL IN WANT OF A HAT SHOULD CALL ON HIM AND MAKE their purchases, for you cannot get a FASAIONABLE one in any other place in the city. Also remember, if you want a No. 2 Hat, he makes them for $6, and guarantees them better than any that can be bought for $7 at any other house.

P. S.—He is introducing a PARIS Style of YOUNG GENTS' HAT, that is a magnificent and new shape.

Also a BUSINESS HAT, entirely new.

JOHN T. ZORN. A. KAPP
ZORN & CO.
GENERAL AGENTS
—AND—
Commission & Forwarding Merchants
421 Battery Street, San Francisco,
11 Beekman Street, New York.

Agents for a number of Manufacturers in the Atlantic States and Europe; purchase and sell any kind of Goods on Commission, attend also to Collections, Remittances, Insurances, &c.

LOCAN & CO.
No. 623 Clay Street,
RECEIVE BY EVERY STEAMER
NEW GOODS,
—SUCH AS—
Knitted and Chrochet Goods,
BERLIN ZEPHYR WOOLS,
FANCY GOODS,
ALBUMS for Carte de Visite, Patterns and all Materials for Needlework.

P. S.—Call and see their new Stock.

SQUARZA'S PUNCH.

FIRST PREMIUM
At the Sacramento Agricultural State Fair of 1862
ALSO, FIRST PREMIUM
AT THE SAN FRANCISCO BAY DISTRICT AGRICULTURAL FAIR, 1862.
☞ Manufactory, Wholesale and Retail, ☜
44 LEIDESDORFF STREET,
OPPOSITE WHAT CHEER HOUSE.

JAS. T. GODFREY & CO.

SOLE DEALERS IN
SONOMA NATIVE WINES.
Depot under the Pacific Fruit Market.
Office No. 617 Motgomery Street,
SAN FRANCISCO.

CHARLES HEFFERNAN,
[Successor to G. McFARLAND,]
MANUFACTURING CHEMIST,
407 MERCHANT ST.,
Near Battery, - - - - - SAN FRANCISCO.

☞ C. HEFFERNAN is sole proprietor of McFARLAND'S PURE ESSENCE OF JAMAICA GINGER, Extra Peppermint, Stoughton's Bitters, Syrups, etc., etc.

RAMS.

PURE THOROUGHBRED SAXON AND AUSTRALIAN MERINO RAMS, for sale by
EUGENE SHERWOOD,
Sausal Rancho, Monterey Co.

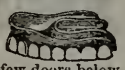
ATKINS MASSEY,
GENERAL UNDERTAKER,
(AT THE OLD STAND,)
No. 651 Sacramento Street, first house below Kearny.
Agent for FISK'S METALIC BURIAL CASES.
Office of the City and County Coroner.

CORBET'S SAMPLE ROOMS.

JOHN CORBET
RESPECTFULLY ANNOUNCES THAT HE HAS NOW ON HAND at his establishment,
No. 412 California Street,
Next door to the entrance to the Tehama House,
ALES, WINES, LIQUORS & CIGARS,
Of the best quality, which he will be happy to supply to his friends and the public generally.
The RETAIL DEPARTMENT is supplied with a choice selection of packages suitable for family and country trade.

MARTIN RESTAURANT,
COMMERCIAL STREET,
LEON DINGEON, - - - - - Proprietor.
BREAKFASTS, DINNERS AND SUPPERS furnished in the best style.
Wedding Parties supplied in any part of the city.
The house has been refitted without and within, and the Saloon and Private Rooms are convenient and comfortable.

ARTIFICIAL BONE FILLING
FOR DECAYED TEETH,
Put in while Soft, without Pressure or Pain.


ACHING teeth or mere shells can be filled with it, and restored to health and usefulness by the discoverer. DR. PEARSON, (late Pearson & Crane,) No. 653 (Old No. 187) CLAY STREET, a few doors below Kearny. Vulcanized Rubber Work done if desired, and satisfaction guaranteed, or gold substituted. All Dental operations will receive Dr Pearson's personal attention.

Three Thousand Acres
— OF FIRST CLASS —
Farming, Orchard and Garden Lands.
For sale in quantities to suit. Part of the well known
Rancho Arroyo de la Alameda,
Situated in the County of Alameda.
W. W. STOW,
No. 25 Metropolitan Block.

SAMUEL E. OAKLEY. CHAS. JACKSON.
OAKLEY & JACKSON
STATE SALT COMPANY,
Nos. 318 and 320 FRONT STREET,
Between Clay and Commercial Streets, ... SAN FRANCISCO.
Manufacturers and Dealers in First Premium
Champagne and Oregon Cider, Pure Vinegar
PICKLES AND SALT IN EVERY VARIETY OF PACKAGE.

The Best Location for Residences
IN THE
CITY OF SAN JOSE.
THE WELL KNOWN GROUNDS OF THE SAN JOSE NURSERY have been laid out in STREETS and LOTS, being the continuation of those of the City.
TWENTY LOTS ARE ALREADY SOLD,
And five houses have been built and families living in them, and other houses are now building, which shows that the place has been appreciated, and in fact there is none better in every respect.
I intend to sell TEN LOTS MORE, CHEAP, and then raise the price. Terms and size of the lots to suit.
TITLE WARRANTED PERFECT.
Inquire on the premises of
L. PROVOST, Proprietor.

GOLDEN EAGLE HOTEL,
CORNER K AND SEVENTH STREETS,
SACRAMENTO.
D. E. CALLAHAN, - - - PROPRIETOR.
Omnibusses to and from the Cars and Steamers free of charge.

FASHION LIVERY STABLE,
On SUTTER, bet. Montgomery and Sansome Streets.
BUCKLEY & JONES, Proprietors.

THIS NEW AND Magnificently finished Stable will be under the express charge of Mr. JOHN M. DANIELS, whose reputation has already been heralded over this State for the last ten years, as a careful handler of Horses, and whose judgement cannot be questioned. The proprietors have spared no pains or expense to erect and furnish their Stable. They will not claim, as it may be called an idle boast, to have the finest ventilated and most convenient Livery Stable in the city, but will invite inspection and abide the verdict.
Will have constantly on hand Carriages and Buggies, Carriage and Saddle Horses, and hope by strict attention to business to merit a share of livery business.

BOWEN BROTHERS'
CHOICE FAMILY FURNISHING STORE
— FOR —
Groceries, Provisions, Household Wares, Fine Brandies and Wines

Our Extensive Facilities for Purchasing, and Long Experience in Trade, enables us to supply our Patrons at the Lowest Possible Wholesale Prices. Persons residing out of Town are assured that our Goods are of the Very Best Quality, and Guaranteed to be as represented. We solicit ORDERS by Mail, from Families who are disposed to buy in quantities, assuring them that special attention will be given to them, and that an IMPORTANT PER CENTAGE will be saved over the customary manner of purchasing. From our Large Stock, Goods will be judiciously selected, carefully packed, and dromptly dispatched to the Steamers and Vessels. No cost for Packing, and Free of Cartage.

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Corner Montgomery and California Streets.

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CALIFORNIA

Wine, Wool, and Stock Journal.

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For the Wine, Wool, and Stock Journal.

WINE MAKING—No. 5.

BY ARPAD HARASZTHY,

Master of Cellars to the Buena Vista Vinicultural Society.

White Wine.

WHITE WINE is the result of the first pressed juice of the grape. This juice, if designed for White Wine, is never fermented with any of the other parts of the grapes, but always alone. There are exceptions to this rule, some few vineyards where the grapes are all white, and where the juice is fermented on the bruised grapes, but so few are these vineyards and so limited the practice, that it can be passed by without further notice.

White Wine is made both from blue and white grapes. The former generally give a heavier wine, one with more *body* and more *spirituosity*. The white grapes give a lighter and more delicate wine.

To make White Wine, a press is necessary. In many parts of our State they simply bruise the grapes and the juice that flows off of itself, immediately, is put into pipes and left to ferment alone, and when fermentation is over, is called White Wine; after this, the grapes and matter left are thrown into a fermenting vat and left to ferment alone as they are, or there is added enough water to replace the juice extracted. If this system was good, it would only necessitate a crusher as described in a previous number, or the simple treading with boots as described in the making of Red Wine, but far from being good, it is downright vicious. By this method you neither make White nor Red Wine. The White Wine made this way is heavy, over charged with alcoholic matter, flat, and void of that vivacity so much appreciated in the good Chablis, the Rhine wines, and the Sauternes. The reason of these consequences is quite natural; the grapes only being crushed hardly more than a quarter of their juice runs off, and that is generally the heavier part or the *must*.

Now the interior of the grape contains but small quantities of tannic and tartaric acids, parts of the grape so essential to the conservation of the wine, but is mostly composed of water and grape sugar, the above acids being contained almost wholly in the skins and stems. If these are not pressed, naturally there will be a deficiency of the necessary acids and other matter, hence the grave faults above alluded to. On the other hand, the Red Wine made from the residue, if no water is poured on, is too heavy, too claraced, too thick, it never will make a good ordinary drinking wine. The highest point it may attain is to be accepted for a dessert wine of second class, but most generally it will only be fit for mixing with weak red wines with little body and little color. In case you add water, the result is that you obtain a weak *liquid*, generally deficient in color, always either bitter or astringent, and in spite of the acids it contains, it is void of life. The acids are not combined in natural and exact proportions, either the tannic acid or the tartaric acid are in too great a quantity, and by their own characteristic and disagreeable tastes make themselves apparent.

The wine maker anxious as to the reputation of his vineyard, should always decide if he will make White Wine or Red Wine, or both. If it be White, then let him make one that is fit for that name. If it be Red, let it be Red. You cannot cheat Nature, and when you try, you always cheat yourself. White Wine is one thing and Red Wine another.

To make your White Wine as good as possible, take the same precautions in gathering your grapes as we have already described, and even be more careful. Your grapes, be they white or blue, must come unbruised and unfermented to the press. Lay the bunches, or throw the bunches in the vat or on the platform of the press, which should be filled in about ten minutes and pressing should begin. Move the lever or crank slowly without jerks, but an even motion downwards. The juice begins to flow slowly from the sides of the press and runs into the tubs placed purposely to receive it. By and by, as the pressure becomes greater, the juice flows more freely. Whenever there is felt a certain amount of resistance in the levers, stop the men turning and let the juice flow a few moments. It will be found that after each such delay the resistance on resuming the pushing of the levers, has greatly diminished. When the pressing is near its end the juice becomes *stained;* this is *second quality Red Wine.* It is used for drink for the workmen, or is distilled, or again mixed with heavy colored Red Wines. If your press is good, and if you have worked it rapidly and intelligently, you obtain only about one-twelfth second quality Red Wine, and the rest is White Wine. You ought to go through the whole operation of pressing in one hour's time, putting in and taking away the grapes or remnants, no matter how large your press be. Even three-quarters of an hour are quite and more than sufficient for a good press. We have already described the press we use and prefer, in the July number, together with the systems most generally made use of in the European wine producing districts. A good wine press, as we have said before, is one that gives the greatest amount of *necessary* pressure in the shortest space of time and at the least expense.

As the juice runs out into the tubs, you do not immediately carry it to the barrels or pipes where it is to remain, but you throw it into a barrel or pipe standing on one head and having the other open. You should leave it here until the must becomes a little clear by letting fall its heavy promiscuous matter, such as dust, etc. This takes eight hour's time, twelve hours, or longer, according to the immediate surrounding temperature. You must draw off your wine from these upright casks before the fermentation starts in, if not, the wine fermenting on its heavy *lees* will acquire a *heated taste*, which is by no means agreeable. The moment for this raking off is just when the fermentaion is about to start, this is recognized by the rising in the must of a white column of foam. This rising column precedes but a few minutes the rising of the lees to the top, which is immediately followed by the fermentation. Some persons wait until the *lees* have arisen to the top, and when all the clear must is at the bottom, to rack off, but of the two methods we prefer the first, when the *lees* are still at the bottom.

This practice of racking off before fermentation sets in, is not followed in all vineyards, but it invariably is wherever the wine has any reputation and wherever the wine maker cares to keep up his reputation. It is the universal practice all over the champagne districts, and there is no wine that has more fineness (*finesse*) than they.

In some vineyards they have large vats holding 500 gallons and more, on purpose for letting the must settle. These large vats we are decidedly against, for this purpose, and we pronounce them highly injurious to delicacy of the wine. Our reason is self evident. Suppose you have one of these vats that we will for conveniency, christen *settling vats;* then suppose you have a small press, which is generally the case, it takes you one whole day's pressing to fill your settling vat, that is ten hours time. Now the juice that went into the vat in the morning will, after the ten hours, either ferment or be on the eve of fermenting, while that which you just put in, is one whole day behind that point. If the fermentation starts at the end of the day, as is very likely, more than three-quarters of the juice will be drawn off without settling completely because the other one fourth was put in sooner and started to ferment. You might just as well not make the attempt to settle your must, than act jn this way. Your settling vats should just be large enongh to contain all the juice pressed from one press full of grapes, and each juice should be kept apart in a separate settling vat.

Rack the must into casks and be careful to leave the bung hole open to give free issue to the carbonic acid. These casks, likes those for Red Wines, should not be filled more than five-sixths full, and it is better to have less in each cask to prevent the

foam from overflowing. The fermentation continues in the cask about ten to fifteen days, like that of the Red Wine. Towards the end you treat in the same manner as Red Wines, which we have already described under that head. When the sensible fermentation has ceased, you fill up to within about an inch of the bung hole, and three days after this, if the fermentation has really become imperceptible, you fill clear up to the bung and close it up tight. Once every week for the first two months, you must carefully change the cloths of your bungs or wash the old ones, as there is a slimy matter that forms itself around the bung hole and attaches itself to the rag. This slimy substance is no less than the mother vinegar that engenders acetous fermentation. You well imagine the danger of the proximity of such a body to the wine. Every week once, as long as this forms itself, wash it off carefully either with hot water or with cold water; the last is the most preferable though it causes a little more loss of time and takes a little more patience.

Should you have to move a cask and in doing so be compelled to put the bung in the hole, be very careful in removing it lest the wine, *push* (*pousse*), that is, foam with such force that half the wine of the cask spouts out of the bung hole in one continued stream, which when started, nothing can arrest. To prevent all possibility of such a serious accident, after moving the cask, before taking out the bung, bore a gimlet hole near to the bung to let out all the gas; wait until this is completely out and then open the bung hole. Always be careful never with fermenting must to leave the bung hole closed but a very short space of time. In fact never close the bung hole if it can possibly be avoided while the liquid is in a state of fermentation. When your casks are filled up, then your wine is made. To give it qualities, it requires age and your paternal watchfulness and care.

In our next number we intend to treat of dessert wines, describing how they are made in different countries and indicating the methods best adapted to the manufacture in our State.

Sprout Clipping.

This practice, only in general use on the banks of the Rhine and in a few of the departments in the north of France, is intended to make the vines bear more fruit and to make the lower buds fertile. Its utility has always been and always will be questioned. Books and books have been written on both sides, and, as it most generally happens, neither one nor the other changed opinions. The difficulty with all writers on such topics, is that they choose as an example their own little district and want thereupon to generalize, to extend the deductions they come to, to every vineyard, to every country, to every climate! This of course cannot be; every vineyard is different in some respect or other, then what must the difference be when the climates are just the reverse of each other?

Those that are against this usage say, that in clipping the sprouts you cause new ones to come out between the clipped end and the stock, which not only fatigues the vine but gives an inferior quality of wine. They say, besides, that as the leaves and sprouts furnish the vine with almost as much nourishment as the roots themselves, in suppressing the former you take away food from the vine. They also contend that the clipping does not make the unfertile sprouts bear fruit. This class are mostly all wine makers of the South; those in the North having the opposite opinion, namely, that sprout clipping, *is* beneficial, say it is good, because it gives more wine; because it makes the unfertile sprouts bear; it removes the surplus leaves and exposes the bunches to the rays of the sun, without which they would not ripen; the vine does not require so much nourishment, and, finally even if it did give an inferior quality of wine, that was not an over important point, because there *must be* second rate as well as well as first rate wines!

The intelligent reader remarks, immediately, how little the persons in the discussion, hold into consideration that one is in a warm climate and the other in a cold climate. A simple thought given to this, would confound for the future all discussions on this topic. Both parties are right to a certain degree. In the South and in warm climates where the grape ripens, sprout clipping should be avoided; in the North and in cold climates where the grape ripens with the greatest difficulty, the practice should be carefully avoided. That the practice fatigues the vine, is acknowledged by all, but then you cultivate the vine not for its wood and leaves, but for its fruit. That there must be some second quality wine is most true, but then it is exceedingly vicious and a great fault to have that quality come from want of proper management of the vine. It should come from the soil, from the variety of the vine, *but never from want of proper cultivation.* In the South they plant the vines wide apart, the roots take a very wide extensions, and the leaves should have a proportionate

extension, because there is an *ascending juice*, coming from the roots up, and a *decending juice*, going from the leaves down; these two juices must be kept in certain proportions. In the North the vines are near together, the roots do not branch off to any great distance, and the same proportion should be kept for the sprouts; some must be suppressed. In the South, you are but too glad to hide your clusters under the leaves from the scorching rays of the sun, while in the North, it is your continual dream only to obtain those beneficial sunbeams. In the South, the vine is generally bent to the ground, a mode of training that makes all the lower sprouts fruitful; in the North, the vines are staked and the branches upright, which position tends to, and does send, the sap up to the extremities and leaves, the lower parts or sprouts unfruitful.

We believe the above explanation is quite sufficient to make the reader capable of juddging whether he should or should not clip his sprouts. In the mountains where the grapes ripen late, he might do well to clip, but in our hot valleys he should refrain. This, though, is not generally followed; there are certain wine makers who, even in the finest situations, continue to clip their sprouts, but generally they do it from routine, because they did it in the *old country*, not thinking for a moment that the California valleys are not the banks of the Rhine. These wine makers also stake their vineyards, so that the harm may be said to be less, because the stock is held up and the sap goes up, but there still remains that disproportion between the roots and the leaves; there still remains the fatigue to the vine. And there is, another item which is no small matter, the expense of labor. This work must be done very carefully or it is injurious to the highest degree.

We have come to the above conclusions, after a careful perusal and comparison of several standard writers on the vine, whose opinions seemed exactly opposite the one to the other. We have candidly expressed our opinion about the controversy, and we would consider it a great favor to hear from any one who might have anything more on the subject, whatever side it be.

The Wine of Honor.

The Emperor and Empress of France in passing through Beaune lately, had presented to them a cedar chest, without sculptures, having the lock and the handles of gold. The chest contained the following wines:

1	bottle	Carton, (Aloxe) of the year	1784
2	"	" " " "	1822
2	"	" " " "	1825
3	"	Beaune, of rhe year	1832
2	"	Clos de Vougeot, (Vougeot) of the year	1834
2	"	Volnay, of the year	1834
3	"	Vosne, " "	1834
2	"	Romanée Conti, (Vosne) of the year	1834
3	"	Montrachet, (Puligny) " "	1834
4	"	Clos de Vougeot, (Vougeot) of the year	1842
3	"	Richenbourg, (Vosne) " "	1842
3	"	Musigny, (Chambolle) " "	1842
2	"	Chambertin, (Georey Chambertin) of the year	1846
4	"	Musigny, (Chambolle) of the year	1846
4	"	Saint Georges, (Nuits) " "	1846
2	"	Bounes Mares, (Morey) " "	1846
2	"	Clos du Roi, (Beaune) " "	1846
2	"	La Tache, (Vosne) " "	1846
2	"	Romanée, Sparkling, " "	1849
1	"	Nuit's Sparkling, " "	1858
2	"	Burgundy Sparkling, frozen.	

This is called wine of honor from an ancient custom which, gave to every distinguished person visiting the city a gift which most often consisted of wine. Who would not like to be Emperor, after such a present—or Empress either?

CULTIVATION OF THE HOP—No. 2.

In our last number we entered at some length, into the subject of cultivating hops in England. In this number we propose to continue our remarks, and also to speak of the other hop growing countries of Europe.

Having already spoken of the soil required for the successful growth of the Hop, we now proceed to speak of its

MANNER OF CULTIVATION.

The site of the proposed hop field having been selected, the ground is trenched or subsoil plowed, or deep holes dug early in October. When meadow or pasture land is to be broken up, trenching is considered indispensable, but in doing it, care must be taken not to bury the surface soil too deeply, as there are good reasons for believing that when rich soil is buried too deeply it becomes inert. If holes are dug, they should be about twenty inches square and two feet deep, and after the hops are planted, the rest of the ground should be dug up deeply. When ground has been trenched or subsoiled, no manure is required at the time of planting, if it be in "good heart;" but if it be poor, it is best to dig small holes about a foot square and fifteen inches deep, and to put into the bottom of each, a spadefull of good dung compost or a few rags, hair, or any kind of animal refuse, but on no account either guano or salts of ammonia.

The best method of setting out a young plantation is to use the common surveyor's chain, and to indicate the distance by feathers, quills, or such like.

At each mark a stick is thrust into the ground, and there the holes are dug and the hops planted.

In speaking of the best method of planting, an authority whom we consulted says: "The plants are raised by cutting off the layers or shoots, of the preceding year. These are bedded out in March or April in ground previously trenched and well manured, which, by the succeeding October, become what are termed 'nursery plants,' or bedded sets, or the cuttings themselves are planted out the same year, but this plan is not recommended, although less expensive, since in a dry spring, there is great risk of their dying. Plants to are obtained from the triple flowers which cannot be set out, howsoever, until they have been *proved;* for, like apples and many other fruits, the plants seldom partake of the the character of the parent, and at least one-half will be males, while of the female plants, probably not one in fifty is worth saving. Nevertheless, a good variety is occasionally procured by this means, and when thus obtained, it must afterwards be propagated, as in the old sorts, by layers. If the nursery plants be used, it is desirable to set them as early as November, and at any rate, if the weather be open, the earlier they are planted in the course of the winter the better. When cuttings are used they are planted without loss of time in March. They are set in squares or troughs at equal distances, generally from six to seven feet apart. The triangular planting possesses an advantage over the square, as when three poles to a hill are employed, it allows the hop "ridget," or scarifier, more completely to move all the ground on the outside of the poles, which is a matter of some importance. With regard to distances, as a general rule, six feet is preferred for square planting and six and one-half feet for triangular, but when it is intended to plant either the Farnham, or Golding, or Canterbury variety, and to place three poles to a hill, six and one-half feet for squares and seven feet for triangles are considered preferable, especially if the land be good. For very fertile grounds, the distances are further increased, sometimes to nine feet in square planting, having poles from twenty to thirty feet in length. In all these matters, however, the exercise of judgment is required.

"If nursery or bedded sets be employed, one, two, or three plants may be used to form a hill according to their strength. When cuttings are used, it is safest to plant five to each hill, which should be dibbled in around one as a centre. Each cutting should have an inch of earth between it and its fellow. In the planting of new grounds, attention should be paid to the introduction of a sufficient number of *male plants.* One hill in two hundred, or about six on an acre, are considered ample. They ought to be planted at regular and known intervals, in order that in subsequent years the cuttings saved from these grounds may not become indiscriminately mixed. The introduction of these male plants is a matter of extreme importance, and ought on no account to be neglected, for it is an established and indisputable fact, that the ground which possess them are more prolific and bring the hops to maturity earlier than those plantations which are deficient in them, and, in addition to these advantages the hops are of better quality."

The cultivation of a new hop yard requires constant attention. The ground must be kept entirely free from weeds and should possess a good depth of pulverized soil. One writer, who professes to have had a long and extensive experience, recommends a dressing of manure in May or June and another during July, after which the hills should be earthed up to the extent of about six inches. This plan, he says, causes the plants to grow strongly, and often repays the grower by yielding 200 or 300 lbs. of hops, an acre during the first year. When they are gathered, the vines should not be cut, but the hops gathered into small baskets. The vines may be cut in November.

In the second year, early in the spring, the hillocks around the plant should be opened and the roots examined. Wherever a deficiency of lime is suspected, a dressing of quicklime, at the rate of 200 bushels an acre, should be applied and dug into the ground as soon as it is spread. Of course no ammoniacal manures should be put on at the same time. The ground is then poled and hoed, and is then dug over a second time, or is broken up by a horse scarifier. About the beginning of May, the vines are usually long enough to tie to the poles, which is done as soon as they will reach them, with rushes or anything which will not injure the shoots. In June the hills are earthed up to a hight of about eighteen inches, and all the weak plants receive an extra manuring, such as ground rape cake, muriate or sulphate of ammonia, or nitrate of potash mixed with equal quantities of guano or superphosphate of lime. From that time until harvest, the cultivator or the hoe, is frequently employed to keep down weeds.

The plants do not produce a full crop until four or five years after planting, and then they attain a hight of from twenty to thirty feet. Their production is always very precarious, for in some years they will yield immense crops, and in others they will prove a failure. They are subject to various kinds of blight, from frost, mold, rust, insects, etc., which, owing to its delicate nature, sometimes destroy more than half the crops.

PICKING.

Hop picking varies with the season, but in Great Britain it usually commences about the middle of September. When the hop is ripe it becomes hard and crisp to the touch, and the color of the flower is changed to a fine straw color. On opening the flower the envelope of the seed is found to be purple and the seed itself is hard like a nut. Until the hop has attained a lightish brown color it is still in a state of perfection, and no time should be lost in picking it, for when it becomes too ripe and the color changes to a dark brown, a great loss, both in quality and weight, is sustained. At Farnham, where they are very particular as to the quality of the hops, the pickers divide them into three classes, the green, which are not quite ripe, the lightish brown, which are there considered to be in perfection, and the dark brown, which are past their prime. Some go even further, and make several qualities, according to their fragrance. The dew should be entirely off the ground before picking, for otherwise they might become musty or take too long drying, or loose their fragrance.

DRYING.

Immediately after picking, the hops are carried off to be dried in kilns or "hop vats," having a flooring of wire or hair cloth. The heat, according to one authority, should not exceed 86° Fahrenheit, and according to another, should not exceed 120°. In some kilns there are two floors, on the upper of which the greener hops are spread and slightly dried before they are subjected to the greater heat of the lower floor. Charcoal is the only kind of fuel which is found not to injure the flavor of the hops. They are sufficiently dry when they become brittle, but this crispness may be removed by allowing them to absorb a little moisture in the storehouse before being packed. Some hop growers, thinking that turning the hops in the kiln has a tendency to injure them, have used a wooden cover, lined on the inside with tin, which by being placed within a few inches of the hops reflects the heat and dries them equally on both sides. But this practice is very unphilosophical, for it is a well established fact, that hops are of a better quality when dried by currents of heated air passing rapidly through them, and not by radiation of heat.

When it is necessary to bleach hops, the fumes of sulphur are admitted during the drying process, and this produces the desired effect. During drying, hops lose greatly in weight, and of every five pounds of moist hops placed in the kiln, only one pound of dried hops is usually taken out.

PACKING.

After they are dried, the hops are tightly packed in bags, and especially when intended for exportation, they are pressed in a hydraulic press until they become a solid mass,—a mass which can only be separated by cutting with a knife. In this state they are ready for market.

BAVARIAN HOPS.

Bavarian hops usually enter the market under the name of Spalt hops, although they are not grown in the district which entitles them to be called by that name,—a district which is justly celebrated for producing the best hops in the world.

The hop growing district of Bavaria is situated north of the Danube as high up as Eurlengen and Amberg, and is known in official language as Oberpfalz. The most prominent characteristic of that district is that it is undulating, with a rich loamy soil,—the hop ceasing where the soil becomes sandy and better adapted to the cultivation of tobacco.

Another district, although of less importance in producing hops of such good quality, is that extending round Memminger, in Swabia, not far from the northern incline of the Alps. Smaller patches for local or individual use are planted by brewers all over the country, but as far as the article of commerce is concerned, it is raised only in the hop yards contiguous to towns in which sufficient labor it attainable at the time of picking. At that season, all the members or friends of families of the hop growers, are invited to participate in the labor, and often the inhabitants of whole cities are, for the time being, turned into hop pickers.

About manuring their hop yards, the Bavarian growers exercise great care, as, owing to the late seasons at which the hops are picked, to the prevalence of heavy rains in summer, and to the liability of early frosts in autumn, they are subjected to greater vicissitudes than even in England. In the neighborhood of cities, too, more fertilizing manure can be

procured than on a small farm. The hop yards generally belong to citizens who carry on other avocations besides, so that they are not entirely dependent upon the quantity of hops raised, as some of our Eastern growers are, and consequently they are less likely to be ruined, should this crop utterly fail. Frequently the growers sell the whole of their crops to the hop dealers, who in turn sell them to the brewers and run the risk of making a profit by the transaction,—a business which is usually carried on at long credits all round.

The Bavarian hops, as we have said, bear a high reputation and during unproductive seasons in England, they are preferred to those raised in any other country, as they possess, in an eminent degree, those qualities for which hops are especially cultivated. It is generally supposed, that these are preserved by the manner in which the hops are treated on arriving at maturity. When ripe, the vines are cut close to the root, and left to dry in the sun. The hops are then picked, and instead of being tightly packed in a hydraulic press, they are merely lightly trodden with the feet, to compress them into a smaller space. The Bavarian growers are opposed to a great pressure, as they believe it to be injurious to the quality of the hop; and from the high character which the hops of that country bear, there are no doubt, the best reasons for this mode of treatment.

BELGIAN AND FLANDERS HOPS.

The Belgian hops have a good reputation, so also, have those of Flanders. In the latter country, considerable attention is paid to their cultivation. One work which we consulted, states that the growers manure with urine and the emptyings of privies; and that crops of fifteen cwt., or about 1,600 pounds to the acre, are "not an unknown produce."

Having thus treated of the various methods adopted by the European and Eastern hop growers, we shall in our concluding article, speak of those adopted in California.

[*Concluded in our next.*]

What to do with Money.

Not a few of our readers have, during the past year or two, accumulated more than is apparently wanted in their business. To many it is a somewhat perplexing inquiry how to bestow their goods. They desire that their surplus capital shall be safe, and that it shall yield a fair return for the investment. We have counseled, and still advise, that the Government securities now in the market are among the very best stocks. Their value enhances with every victory, and we rejoice that these are multiplying weekly. But there is danger that many will overlook investments nearer home that would be equally safe, and in the end more remunerative. It has been proved over and over again, that capital judiciously used in farming can be made to pay a percentage with which reasonable men will be abundantly satisfied. Indeed the want of sufficient means to properly improve the farm and bring it up to its best producing capacity, is the great hindrance to the advancement of thousands. They are barely able to make ends meet when interest day comes round, and are unable to drain, to subsoil, to manure, to build and fence; and thus from year to year, the farm is at a stand still, if it be not running down. To such we repeat the advice repeatedly given in these columns, sell part of the farm and improve the remainder, and there will be more satisfaction in working, because of less embarrassment, and in the end, greater profit. To those whose farms are already paid for, and who are so fortunate as to be inquiring what to do with their surplus capital, we say, spend it on the farm, if it be not already at the highest point of productiveness. Fifty dollars per acre spent in draining, will often give an increased fertility to the soil equivalent to ten, or even twenty per cent. on the amount expended. So of buildings for shelter, planting of orchards, and purchase of manure. Each, for himself, will be enabled to judge what is lacking to make his a first class farm.

Many capitalists have shown their foresight by seeking investments among the agricultural community, advancing funds to young men just starting in the world, for the purchase of farms, or to those desiring to improve the land already owned. Others have wisely purchased homes in the country, and deeded them to their wives, that something substantial may remain in case of reverses, which often prostrate the most successful business men. Hundreds of these will, in after years, discover that this was wise, not only because it saved something from the wreck of their fortunes, but from finding in the peaceful occupations of intelligent husbandry, a satisfaction never enjoyed in the whirl of the city, and more than this, a better atmosphere, moral as well as physical, for the education of their children. Many among our readers are of the mercantile and manufacturing classes, and they may well give this subject their careful thought. In the end, some of them will, without doubt, thank the *Agriculturist* for having made these timely, practical suggestions.

A SPORTING HOG.

In looking up some matter connected with the porcine race in order to diversify that portion of the Journal relative to stock affairs, amongst other subjects we came across T. Rowlandson's Prize Essay on the Breeding and Management of Pigs, in which many habits and instincts of the hog were noticed which are commonly overlooked. Amongst others alluded to by Mr. R. is the exquisite power of scent which the hog possesses, and he gave by the way of illustration, the well recorded fact of Toomer's sporting hog "Slut."

Believing a full account of this extraordinary animal will prove gratifying to our readers, we here insert an extract of its history, etc., from Daniel's Rural Sports.

"Slut was bred in and was of that sort of which maintain themselves in the New Forrest (England) without regular feeding, except when they have young, and then but for a few weeks, and was given, when about three months old, to be a breeding sow, by Mr. Thomas to Mr. Richard Toomer, both at that time keepers in the forest. From having no young, she was not fed, or taken very little notice of, until about eighteen months old; was seldom observed near the lodge, but chanced to be seen one day when Mr. Edward Toomer was there. The brothers were concerned together in breaking pointers and setters, some of their own breeding, and others which were sent to be broke by different gentlemen; of the latter, although they would stand and back, many were so indifferent, that they would neither hunt nor express any satisfaction when birds were killed and put before them. The slackness in these dogs first suggested the idea that, by the same method, any other animal might be made to stand and do as well as one of those huntless and inactive pointers. At this instant the sow passed by, and was remarked as being handsome; Mr. R. Toomer threw her a piece of oatmeal roll, for which she appeared grateful, and approached very near; from that time they were determined to make a sporting pig of her. The first step was to give her a name, and that of Slut (given in consequence of soiling herself in a bog) she acknowledged in the course of a day, and never afterwards forgot. Within a fortnight she would find and point partridges or rabbits, and her training was much forwarded by the abundance of both which were near the lodge; she daily improved, and in a few weeks would retrieve birds that had run as well as the best pointer, nay, her nose was superior to any pointer they ever possessed, and no two men in England had better. They hunted her principally on the moors and heaths. Slut has stood partridges, black game, pheasants, snipes, and rabbits, in the same day; but was never known to point a hare. She was seldom taken by choice more than a mile or two from the lodge, but has frequently joined them when out with their pointers, and continued with them several hours. She has sometimes stood a jack-snipe, when all the pointers had passed by it: she would back the dogs when they pointed, but the dogs refused to back her until spoken to; their dogs being all trained to make a general halt when the word was given, whether any dog pointed or not, so that she has been frequently standing in the midst of a field of pointers. In consequence of the dogs not liking to hunt when she was with them (for they dropped their sterns, and showed symptoms of jealousy), she did not very often accompany them, except for the novelty, or when she accidentally joined them in the forest. Her pace was mostly a trot, was seldom known to gallop, except when called to go out shooting; she would then come home off the forest at full stretch (for she was never shut up but to prevent her being out of the sound of the call or whistle when a party of gentlemen had appointed to see her out the next day, and which call she obeyed as readily as a dog), and be as much elated as a dog upon being shown the gun. She has frequently stood a single partridge at forty yards distance, her nose in a direct line to the bird: after standing some considerable time, she would drop like a setter, still keeping her nose in an exact line, and would continue in that position until the game moved; if a bird ran off, she would get up and go to the place, and draw slowly after it; and when the bird stopped, she would stand as before. The two Mr. Toomers' lived about seven miles apart, at Rhinefield and Broomy lodges. Slut has many times gone by herself from one lodge to the other, as if to court the being taken out shooting. She was about five years old when her master died; and at the auction of his pointers, etc., was included in the sale, and bought in at ten guineas, Sir H. Mildmay, having expressed a wish to have her, she was sent to Dogmersfield park, where she remained some years; she was last in the possession of Colonel Sikes, and she was then ten years old, had become fat and slothful, bnt would point game as well as before. When killed she was at Bassilden-house. Slut weighed 700 lbs. Her death, to those who possess common feelings of humanity, appears (if one may use the expression) at least animal murder; it would have cost but a trifling sum to have fed and sheltered her in the winter, and the park would have supplied her wants during summer at no expense."

The above beats the learned pig. We may state of our own knowledge, the hog can be trained to become an excellent truffle hunter.

Amongst other instances of the tractability of the hog, we recently made the following clipping, and now introduce it by way of illustration:

Pigs in Harness.—It is almost impossible to limit a pig's education, provided that it is intrusted to a careful and patient man, who will not readily lose his temper, and deals gently with the animal. Pigs are often sufficiently tame to permit children to

mount on their backs, and one person actually put some of his pigs through a regular course of training for the saddle. A team of four hogs has been also taught to draw a carriage, such an event having taken place at St. Albans some years ago, when an old farmer of the neighborhood threw the town into much excitement by driving a chaise into the town, drawn by four pigs. He drove several times round the market place, and had his steeds put up at a stable and fed with beans and wash. In a few hours the pigs were again harnessed, and trotted off briskly with their master.

The Theory and Art of Shoeing Horses.

The following is an extract on this very important subject, from the Scottish Farmer:

The practice of shoeing requires from its devotees a knowledge of science and art. The art of shoeing bears little analogy to smith's work, with which it is commonly allied. the latter is a mechanical work, to be carried out by rule; not so the successful application of an iron shoe to a living horse's foot; in this process a knowledge of the organs and textures acted on is required.

In returning to discussions on the art of shoeing horses at this epoch, after a long stagnation, which succeeded much erroneous teaching, there is necessarily a great deal to pull down in order to make room for a sound theory and rational practice. Like every other branch of useful knowledge, this will progress and produce good results in proportion as the public is rightly informed of the true state of the art, its importance and required improvement. Those who require to learn enough about the art of shoeing to apply their knowledge to practice, can only attain to such proficiency by using the same means to learn the rules and apply them as are adopted in other arts neither more difficult nor more important.

The foot of a horse, as we investigate it, and more and more understand it, will be found to constitute one of the wonders of creative structure—endowed as it is with great strength to support weight, and endure long-continued exertion at great speed, yet exquisitely exact in all its movements. To protect this organ from being unduly consumed in the performance of the work to which man has submitted the horse, is our business.

The first requirement in a man who undertakes to shoe horses is a knowledge of the component parts of the foot, its normal form, and its movements when in exertion; this may seem much to exact from men to whom little opportunity to acquire the knowledge has been given. We are only stating, however, what is required, knowing well that for a while less must necessarily be accepted. The art of shoeing a horse is one that demands the application of mind no less than of hand and arm work.

The first undeviating rule to be carried out in shoeing is, that the natural bearing surface be given to the foot—any deviation disturbs the line of bearing, not in the foot alone, but in the whole limb. To carry out this rule in practice, the depth of the hoof in all its parts, front, quarters and heel, must be adapted under an intelligent understanding; this done, the bottom circumference of the foot is thereby regulated. The man who understands how to do his part is most likely to know how to adapt a shoe accordingly. In the earliest stages of horse-shoeing, and in those countries where up to the present time the art has undergone the least change, they understood the way that the hoof was worn, and modeled their shoe in accordance. How much the anatomy of the foot was understood, or how much was due to their intelligent observation on the external hoof, we cannot say, but since we know that the functions of the horse's limbs were so far understood as to lead to written descriptions by the Greek authors, which we may read with profit, we think we are warranted in believing that the men understood why they were giving the shoe an adaptation to the foot, deviating from the straight or flat line, but in accordance with the motion of the foot. In these islands it seems that no account was ever taken of the necessary deviation from a flat or level surface; the horse's foot was reduced from its overgrown state to something like its required proportions, and made level on its bearing or ground surface, and the shoe was then fitted accordingly. The man was considered the best workman who could adapt the two straight surfaces of hoof and iron with the greatest nicety.

The Dairy.

The *Country Gentleman* of the 23d of July, contains a report about farming, at the Lunatic Asylum in Utica, N. Y.

Early in 1860, our way led through Utica and having a friend at the Asylum, we visited it, and spent a whole evening there, carrying away a most pleasing impression.

The treatment of the unfortunate patients was rational and they seemed quite as happy as any we have seen elsewhere in the best institutions of the kind. Gardening and farming form indispensable items in every *huge household* of the kind, and smaller housholds can copy with advantage part of the *modus operandi* adopted there. The report tells us that the yield of milk has increased notably since the cows are fed with food cooked by steam. The report is too long for its entire insertion in our present number, but we may revert to in our next. It treats, in conclusion, of a topic too much neglected, *in toto*, by builders of farm houses, and that is the heating in winter and the airing in summer. Rely upon it, warmth and oxygen, kindness and cleanliness, exercise *their* influence on the yield of milk and muscle, little as it may be thought of by those about the dairy at the present day.

CALIFORNIA

Wine, Wool, and Stock Journal.

"Festina Lente,"---Hasten Slowly.

SAN FRANCISCO, OCTOBER, 1863.

To Advertisers.—The Wine, Wool and Stock Journal now has a liberal circulation through the State among wine-growers, wool and stock raisers, dairymen, and agriculturists generally. Nurserymen, stock-raisers, inventors of new machines, will find our columns the place to make known their business; and now is the time to advertise.

Notice.—We respectfully ask attention of our subscribers to the bills inclosed in their papers last month, and hope they will *remit us the amount.* The sum in the aggregate is large. We have waited six months for many, and ask a ready response.

Posters—Printing, Etc.—We are prepared to get up Illuminated Posters and Showbills, for Agricultural and other Societies, in a style of typography hitherto unattempted in this State; we will also execute to order, all kinds of work for *stock breeders*, race meetings, nurserymen, and others; having received a supply of beautiful cuts, specially adapted for the purpose—specimens of which may be seen at our office—address orders to the publisher of this paper.

INQUIRIES.

—— What is the remedy for the Striped Bug on Pears, and other trees, eating the blossom, and destroying the fruit? Will some of our readers answer.— *W.*

—— What is the cause of so many light colored grapes on the California Vines this year?

—— How to make raisins, and what is the best grape for them?

—— How to make prunes, and what is the best plum for that purpose?

Will some of our readers, who have experimented, state their modes and their success.

A subscriber informs us that he has made some very fine prunes from the St. Catherine plum; also some good raisins from the White Muscat of Alexandria.

TO OUR READERS.

Our absence during the past month, up to the 5th of the present month, must be our apology for delay in the issue of the present number. The articles in this issue will be found to be of much interest. "Making White Wine," "Hop Culture," "Culture of Madder," Etc., all prepared with much care, and expressly for our Journal. The contemplated improvements will be announced in our next issue, by which time we hope to be located in our new office, where we shall be happy to see our friends, and show them some of the products of our State, which will be on exhibition there—announcement of which will be duly made, in the papers of the day. To the many friends who so generously came forward and encouraged our Journal, by their liberal subscriptions and influence, we return our grateful acknowledgements, as well as for the many flattering compliments our paper receives on all sides. Our duties at Stockton and Sacramento, during the Fairs, and serving on various committees, both out and in-doors, on *arduous*, yet pleasant duty, has somewhat wearied us; together with the necessary duties in issuing our present number. After a brief respite, of a few days, which is much needed, we shall resume our task, and in future numbers, will show our readers and the public, that our Journal is certainly worthy a liberal patronage.

The Wine, Wool, and Stock Journal received a *Special Premium* at the San Joaquin Agricultural Society's Fair, and *First Premium* at the State Agricultural Fair at Sacramento.

The Wine, Wool and Stock Journal.

Our Journal, which has on all sides received such unanimous praise, for its beautiful typography, (receiving the *First Premium* at the State Fair, at Sacramento,) is printed at the Commercial Printing House, Francis, Valentine & Co., Proprietors, 517 Clay Street, at which office it has been regularly printed since its commencement, in January last. The labor and care bestowed in making up the Journal, each month, is something of a task, and certainly reflects great credit upon the office and the typos.

American Stock Journal.—We can furnish the *Four Volumes*, complete, handsomely bound, on application to this office—a valuable publication. Also all kinds of Books, on Turf matters, Sporting subjects, and a large variety of Works, on the *Horse*, and Stock Raising, and Veterinary matters.

One Copy *Pictorial Gallery of Race Horses*, just received.

Mr. John Walker, in Green Valley, Sonoma county, has a splendid field of fifteen acres of Tobacco, of the varieties known as Big Frederick, Virginia Brown, Bull Head, etc. He has constructed a curing house twenty feet high and sixty feet wide, with all the requisite improvements. Samples of his Tobacco will be exhibited at the Sonoma Fair.

THE CULTIVATION OF MADDER.

Among the plants which have been recommended to be cultivated in the United States, is that of Madder. It is a native of the South of Europe, Asia Minor, and India; but it has been cultivated in Holland and the South of France for a long time, with great success. Its cultivation has been attempted in England, but with no satisfactory results. Our supplies were for a long time almost entirely derived from Holland, but large quantities are now obtained from Turkey and France, and a small supply from India.

As is well-known, madder is very extensively used in dyeing red, and although its color is not so brilliant or so beautiful as that imparted by cochineal, it has the advantage of being cheaper and more durable. The coloring matter is obtained from the roots. They are long and slender, and vary in thickness from the size of a goosequill to that of the little finger. They are reddish in color, are semi-transparent, have a strong smell, and a smooth bark. They contain at least two distinct coloring matters —a fawn and a red; and their mixture deteriorates the qualities of both. In consequence of this, two kinds of red are obtained—"Madder Red" and "Turkey Red." The former is so called because it contains the whole of the coloring matter of the root; and the latter, because it was first obtained from the Levant. Turkey red possesses far more luster, and is much more valued than madder red. The manner of producing this luster, was for a long time kept a profound secret in Turkey, in spite of the efforts of French chemists to discover it; but by repeated attempts at imitations, one or two establishments succeeded in producing a most beautiful color. By very slow degrees, the process was partially disclosed; but it was not until 1804, that any really valuable discovery was made. In that year, Sir H. C. Englefield, of England, after many experiments, found that the madder procured from Smyrna was of a deeper and richer tint than that obtained from Holland—that the coloring matter might be extracted from fresh roots—and that it might be kept for any length of time without its virtue becoming impaired. By this discovery, a great saving was effected; for not only was the labor and expense attendant on the preparation of madder avoided, but the cost of transportation was prevented, and an additional advantage gained in the extraction of *all* the coloring matter from the roots. Since that time, madder has come into more general use in the arts than ever it was before.

As it is not improbable that at some future day, madder may be raised in this country, we propose to speak of the manner in which it is cultivated in Holland and France, the two countries from which we derive our supplies, and in which its culture is best understood.

It is in the department of Vaucluse, in France, that madder is cultivated to the greatest extent; and that part of the country is noted for the large quantity of calcareous matter deposited on its surface. It contains from 80 to 90 per cent. of chalk, and is very favorable to the development of the root, as it is rich and light. Madder can be propogated from seeds or from the offsets of the roots: but here it is grown only from the seeds. During the winter months, the soil is manured with a liberal coat of dung, and afterwards it is well worked. The seed is sown in the Spring, in beds, about five or six feet wide, and having a space of about a foot and a half between each. When the young plants are up, great care is taken in clearing the land; and in November, the beds are covered with earth to a depth of two or three inches, with earth taken from the space between the beds.

During the second year, the weeding is continued; but as the plants are then more developed, the work presents no difficulty nor entails any expense. When they are in flower, they are sometimes cut and given to the cattle for feeding purposes, but sometimes they are left for seed. The seeds are gathered when they present a dark violet hue.

In the third year, the plants are weeded, and the green crop mowed or cut; and this is all the treatment they require. In August or September, as soon as the soil is wet from rain, the digging of the roots is usually commenced, by making a trench in each bed in the direction of its breadth, and working the land carefully over, throwing out the plants and loosening the roots. The roots are then pulled out of the ground with the hand, placed on linen cloths, and taken to an outhouse where they are prepared for packing. If they are dry at the time of harvesting, they are merely cleaned; but if they are damp, they are washed, dried in the open air, and packed up in bales.

In the Dutch province of Zealand, madder is cultivated to most advantage, on the rich alluvial "bottoms" produced by the sea, which consequently abound in soda and silicious sand. In Alsace, it is

cultivated on land which contains a great deal of lime. That these differences in the constituents of the soil exert considerable influence on the coloring matter of the root, there can be no doubt; for it is a well known fact that the madder raised in Zealand contains more of the yellow and less of the red coloring matter than the better qualities of France and Alsace. In Zealand, madder is raised from shoots or offsets, planted in May, in well-worked ground, in rows about two feet apart. During the first summer, every weed is thoroughly extirpated; and in November, the plants are covered with earth taken from the spaces between the rows. During the second year, the weeding and covering with earth are repeated. The third year, the ground is still kept free from weeds, and in August, the work of digging the roots commences. After they are taken from the earth, a work which is performed by strong spades—they are conveyed to stoves and dried; they are then cleansed, dried a second time, ground to a fine powder, and packed in barrels, and sold.

It will be observed that that the method pursued at Vaucluse is different from that in Zealand. In Zealand, the growers send the madder to market in a manufactured state; in Vaucluse, the roots are sold after they are dried. In Vaucluse, the roots are dug during the third year, when they are about thirty months old; in Zealand, they are frequently dug during the second year, when they are only eighteen months old. This is done to prevent the crop being injured by the severe frosts of winter; but it sometimes happens that it is kept in the ground for the third year; in Vaucluse, the average yield of dried roots to the acre is 2,800 pounds, or about 2,240 pounds of madder, when it is reduced to powder. In Zealand, the yield of powder is 2,350 pounds of the first quality, besides about 100 pounds more of an inferior article.

In preparing madder for market, there are three methods for drying the roots—by the sun, in the shade, and in stoves. When it is dried in the sun, there is considerable loss, both in weight and quality; by the stove, the roots lose about seven-eighths of their weight; so that the most effective mode yet employed is to dry them in the shade, exposed to a current of air. This process would doubtless be resorted to in Holland, were it not that the humidity of the atmosphere there, renders such a course impossible: hence their resort to stoves.

About the method of raising madder in Turkey, at the present day, we have no positive information. It is brought to Smyrna for shipment, and the quantity amounts annually to 50,000 or 60,000 sacks of 2½ cwt. each. At that place the roots are garbled and packed into bales. The annual product varies with the prices; for when it is low, the growers refuse to dig the roots, and when it is high, they often take them up when they are only two years old. In 1860, in the Smyrna market, Bakir roots were worth 46s. 6d. sterling per cwt., and other roots from 39s. to 45s. 6d. per cwt.

We have stated above, that the madders raised in various countries differ in the degree of red coloring matter which they contain. This difference is supposed to be caused by the constituent elements of the soil in which it is raised. For in instance, that raised at Vaucluse yields a brighter red than the Dutch, Turkish, or American madders, and for dyeing purposes requires no addition of carbonate of lime, as other madders do. With the view to ascertain the cause of this superiority, Mr. Carnes, of Lowell, Mass., analysed the ashes of various kinds, and it was found, that those of the French madder contained 32-76 per cent. of the carbonate of lime, those of the American madder, raised at Montague, Mass., 23-39 per cent., and those of the Turkey madder, contained only 18-35 per cent. "This fact, coupled with that of the French madder effervescing when treated with dilute acid, which the others do not, led Mr. Carnes to the opinion that carbonate of lime was introduced into the French roots while undergoing the process of grinding, and he inferred that if the American were treated in a similar way, it would rank with the best madder in the world, for the colors obtained with it, after it was treated with 4 to 6 per cent. of chalk, were superior to those of the best French madders."

[*Concluded in our next.*]

Grapes at Los Angeles.—The price of grapes in the Southern portion of the State, is only half a cent per pound! A Los Angeles correspondent of the *Alta*, writes thus:

"The vintage season is upon us. The makers of wine manifest a greater disposition to buy grapes than they did last year, but there has been no advance in price, which is five mills per pound. If the wine can be sold, the making must leave a handsome profit at this price. I do not see much sign of shipping grapes to your city this season."

They have in San Francisco an "animated bean," which skips and hops about like popping corn. It is supposed to be subject to electrical influence.

SHEEP HUSBANDRY—No. 5.

DESTRUCTION OF SHEEP BY DOGS.

The destruction of sheep by dogs, has always been a great discouragement to farmers throughout the country, and has led numbers to give up sheep husbandry that would otherwise have persevered in it. It is within the scope of our own knowledge that whole sections in both Maryland and Ohio have entirely abandoned this important branch of agriculture in consequence of the losses sustained through the destruction of flocks by these useless animals. In the State of Ohio alone it is estimated that as many as ten thousand sheep have been thus destroyed in a single year. The value of 10,000 sheep is far more than all the dogs in the United States are worth. The only practical use which we have ever seen made of them is by the ash gatherers, a few of whom hitch them to their small carts to assist in drawing the load. In Spain and other parts of Europe where sheep are attended by shepherds, dogs are made use of to keep the flocks within proper limits, and to assist in driving them from place to place, but this is a peculiar breed trained to the business and were never known to harm sheep. In hunting, it may reasonably be claimed that dogs are of some service in bringing in game, in discovering its whereabouts, and in some other respects. Many people regard them as valuable to guard premises from thieves or to give the alarm at their approach, but making liberal allowances for all these benefits, the destruction of sheep alone far exceeds all the value of their services. More than three-quarters of the dogs in the country are kept as mere pets and are of no earthly value whatever. It is estimated by parties who have been at considerable expense and trouble in obtaining the information, that the number of dogs in the country is rather over than under three millions, and that the average cost of their keeping is not less than five dollars per head annually. Many of the fancy pets kept in the cities and large towns, cost from fifty to one hundred dollars a year for their keeping. The owners go as regularly to the butchers for meat for the dogs as they do for their families. A gentleman living in one of the large towns in the interior of this State upon being questioned as to his opinion of the average cost of keeping dogs insisted that it could not be less than ten dollars. His own two he said he *knew* cost him over twenty-five dollars a piece each year. In the Georgia Legislature, recently, a bill was introduced requiring the destruction of all dogs, and in the debate it was stated, that there were more than one hundred thousand within the limits of the State. It was estimated that the provisions they consumed would furnish rations, and the sheep they destroyed annually would furnish clothing, for at least five thousand troops. The population of Georgia is about one million. Taking one hundred thousand dogs to a million of population as a basis, it would make three millions of dogs for the whole United States.

It is generally supposed that families average about six persons, and we think it a low estimate to say that there are at least three dogs to every five families. Averaging families at six persons, it would make five millions of families in the whole country, and calculating three dogs to every five families would make the number of dogs three millions. At five dollars for the averaged annual cost of keeping it will be seen that the aggregate is *fifteen million of dollars.* If judiciously expended, this vast sum would support all the poor in the country who from circumstances beyond their control, are legitimate objects of charity. "Ye have the poor always with yon," and it would seem to be quite as creditable to our humanity to expend this amount in feeding and clothing helpless women, and children as to waste it on worthless curs which endanger the lives and destroy the property of our people. We are aware that it will be said that the food consumed by dogs is generally of a character that would otherwise be thrown away, but to this it may be replied, that in cities it would be very acceptable to the poor, and in the country where there are less poor, it could be quite as profitably disposed of in feeding swine.

Dogs are generally the natural enemies of sheep and have an unaccountable propensity to destroy them. They are also dangerous in all communities on account of their liability to "hydrophobia" the most terrible of all diseases. We are told by parties thoroughly informed upon the subject, that the number of deaths by "hydrophobia" has fearfully increased within the past ten years, and this can only be accounted for, upon the supposition that the number of dogs has greatly increased. Taking their liability to "hydrophobia" and their propensity to destroy sheep into the account, dogs may reasonably be considered as a public "nuisance." No man has a moral right to keep upon his premises an animal that is dangerous to the lives or property of his neighbors, and he ought not to have a *legal* right.

No good citizen ought to desire to keep such animals. If we have among us men who persist in keeping a pack of dogs, to sneak off at night and destroy their neighbors sheep, *let them be taxed heavily*. It is confidently believed, that with reasonable protection against the destruction of sheep, the farmers throughout the country will hereafter give more attention to sheep husbandry than they have ever before done. There certainly was never so good an opportunity presented to an agricultural people, to lay the foundation of great wealth, as this war has furnished to the people of the West by cutting short the cotton supply ,and thus making a market at double price for four-fold the quantity of wool that was required when cotton was ten cents a pound, and it is the duty of the Governors of all the loyal States to recommend the passage of stringent laws for the protection of wool growers against the destruction of sheep by dogs.

We are informed that a law exists in this State taxing dogs fifty cents a head. The fund raised from this tax is appropriated to pay for all sheep destroyed by dogs, on the certificate of officers appointed to appraise the value of the sheep. This is a simple and good law, except that the tax should be five dollars instead of fifty cents.

FINE WOOL SHEEP.

It is a remarkable fact that England, with the expenditure of millions of pounds, and with the efforts of the numerous ingenions and renowned breeders, including George the Third, Lord Western, and others of scarcely less distinction, has never been able to produce a breed of fine wool sheep equal to flocks that are to be found in our own country. The wool from certain flocks in Washington County, Penn., Brooke County, in Western Va., and Harrison and Jefferson counties, in Ohio, by far surpasses any English production in its adaptation to the manufacture of mouslin-de-laines, fine fancy cassimers and doeskins, (such as have heretofore been imported from France, Germany, and England,) and of all grades of fine flannels. The average weight of the fleeces, at the present time, is about three pounds of well-washed wool, but it is believed that by careful attention to the selection of the breeding parents, and by the adoption of the same principles of breeding that have been so successfully practiced in England by such distinguished breeders as Bakewell, Cullen, Chaplin, and others, this average may be brought up, without deterioration of the fiber, to four and one-half or five pounds, and other improvments made in size and form, that will stamp the breed as *peculiarly American*. The increased weight of the fleece can only be brought about by an increased size of carcass, and this it may be well to mention would add greatly to the value of the sheep whenever they were to be disposed of for mutton. The importation of fine wools from the river La Plata and the Cape of Good Hope, is at the present time between twelve and fifteen millions of pounds annually. This quantity is promptly disposed of in addition to the fine wool of our own production, and parties well-informed upon the subject, express the opinion that the demand for this grade of wool will unquestionably be doubled within the next five years. Fine wool of our own production, of precisely *the same quality as the imported wools which we have mentioned*, is greatly preferred by the manufacturers, and will bring, in a scoured state, from ten to fifteen cents a pound more. The wools of Washington County, Penn., and of Harrison and Jefferson counties in Ohio, to which we have alluded, have been sent to France and Belgium, where they have been greatly approved in the production of all-wool mouslin-de-laines and fancy cassimers, for which these countries are so justly celebrated. In former times it was thought necessary that fine wool, adapted to felting purposes, should be of short staple, but the improvements in machinery have been such as to make it convenient to use fibers of any length, provided the quality is the same. By the tariff of 1846, the business of producing broadcloths in the United States was completely destroyed, so that, in 1860, there was not a mill in the conntry producing these goods; but the tariff of 1861 has revived the business, and the market is now being supplied with specimens which give promise of a successful rivalry of the best productions of Europe. We learn that orders for fancy cassimers and doeskins, which have heretofore been filled in France and Belgium, are a very large portion of them being executed, this season, by our own manufacturers, and in styles and qualities fully equaling the foreign production. Opera and other fine flannels, too, that have heretofore been imported in considerable quantities, are now being nearly all produced here. The Commercial Editor of the *Herald*, in speaking of the probable commercial results of a cessation of the war, says: "In the first place, peace would bring us a swarm of immigrants far in excess of anything heretofore witnessed. Under the protective tariff forced upon us by the war debt, it will be cheaper for European

manufacturers to come here with their workmen and their machinery, than to export goods from Europe, and it may be taken for granted that they will come in large numbers."

All these facts go to strengthen the conviction that there will be no surplus of fine wool in our country for years to come, and we feel warranted in recommending to farmers who have flocks of fine wool sheep, in localities where they have heretofore been thrifty, to increase them as far as their means will warrant, and to take such measures as we have suggested to improve their size and form. Let us have a distinctive breed that we may truly style "American," and that we shall be proud of. It is believed that the custom of breeding fine specimen bucks for hire, that has prevailed in England for years past, has been greatly conducive to the improvement of flocks in that part of the world, and it is to be hoped that it will be adopted more generally in this. Wool-growers, generally, cannot reasonably be expected to understand all the details and philosophy of breeding as well as those who make it a distinct and separate business, but they *can* avail themselves of the use of fine bucks, produced through the ingenuity of breeders, in the same manner as they are accustomed to avail themselves of the services of fine stallions and bulls. With the encouraging prospects for a vigorous demand for wool of all grades, in the future, we confidently believe that breeding bucks for hire and sale could be made exceedingly profitable. We are familiarly acquainted with hundreds of the farmers of the West (having been raised there,) and we know them to be possessed of good common sense and ability to conduct any business with success. All that they require is to apply their capacity in the direction of breeding, and we have no doubt they will produce results fully equalling those of breeders in England or in any other part of the world. "Like causes produce like effects," and all that is to be done is to use the same means that have been used in other countries and the same results will follow. For fine wool sheep it cannot be doubted that our climate and soil are far better adapted than that of England. It is a well-known fact that we had less difficulty in acclimating the Merino breed, than most other countries to which they have been introduced, while it is equally well-known, that they proved peculiarly unsuited to the climate and soil of England, and have been almost entirely abandoned.

In April we predicted that the wool clip of the West would probably bring from sixty to sixty-five cents a pound, and we are pleased to learn that buyers have been scouring that part of the country in great numbers ready and anxious to purchase double the quantity produced there, at from sixty-five to seventy-five cents a pound. A gentleman from Marion County, Ohio, having four thousand fine wool sheep, informs us to-day that he was last week offered seventy-six cents a pound for his entire clip, at which many of his neighbors had disposed of their wool, but that he declined the offer, holding it at eighty cents the lowest.—*U. S. Economist.*

Veterinary Department.

FOUNDER (LAMINITIS) IN HORSES.

By R. Jennings, Veterinary Surgeon, Professor of Pathology and Surgery in the Veterinary College in Philadelphia.

This disease, as the name applies, is an inflammatory condition of the *lamniæ* of the feet. In order that the reader may fully understand the character and effects of this dreadful malady, we will briefly describe, anatomically, the parts involved.

ANATOMY OF THE FOOT OF THE HORSE.

The foot internally comprises the *coffin navicular*, and the lower or inferior part of the *coronary* or small pastern bone; also *ligaments*, *cartilages*, the *sensitive laminæ*, *crust*, *sole* and *frog*. The coronary or small *pastern* bone, is nearly square, presenting four surfaces, the upper for articulating with the large *pastern* or *os suffraginis*, it also presents two concavities with a central elevation or division, forming with the large *pastern* a kind of hinge joint.

By this arrangement strength is added to the parts; the lower surface is concave in the center, with two convex surfaces on either side, which, uniting with the *os pedis* or *coffin* and *navicular* bones, forms another hinge joint of still greater strength. The *os pedis* or *coffin* bone is semi-lunar in form with a triangular diameter, presenting three surfaces, the anterior or front surface is convex, while the ground and posterior surfaces are concave.

The *os pedis* of the front foot is more regularly arched, and are longer than the hind one. Occasionally we find the *os pedis* of the hind foot nearly triangular in form, as well as in diameter; to either side of this bone are found a projection backwards which are known as the *alæ* or wings, to which are attached the lateral cartilages extending upwards

and backwards, and may be readily discovered by placing the fingers above the hoofs at the quarters.

The *navicular* bone completes the bones of the foot, it is situated posteriorly between the *coffin* and *coronary* bones, completing the *coffin* or *navicular* joint. It is semi-oval in form, presenting four surfaces, the superior articulating with the *coronary;* the anterior with the *coffin* bone, the inferior over which the *perforans* tendon plays, has a much broader surface than either of the others. Posteriorly and under these bones, we find the *ligamentous frog;* between this *frog* and the *sole*, we find the sensitive frog, and covering the anterior surface of the *coffin* bone, we find an exceedingly delicate structure known as the *sensitive laminæ*, which is very vascular, and largely supplied with minute nerves. This *laminated* structure corresponds to the horny *laminæ* of the hoof, and when adjusted, fills up the entire circle of the hoof, or the anterior and upper part of the foot.

Externally we find a horny case, covering the entire foot, which has been divided for convenience thus: the crust or wall, the sole, and the bars. The crust is that part which covers the anterior part of the foot, attached above to the skin at the termination of the hairs. This upper margin is termed the coronet, this crust is made up internally of numerous horny *laminæ* or foliated structure, which are very soft and elastic in their character, and exactly adapted for the reception of the sensitive *laminæ* previously described.

The sole is the ground surface of the hoof with a triangular space for the reception of the horny frog. The bars are processes or wings of the wall passing obliquely across the bottom of the foot on either side of the frog, giving support to the heels.

The internal surfaces are covered in part by horny *laminæ*, but are less numerous in proportion to the surface covered, than are those of the crust. The frog is a triangular elastic cushion, situated between the bars and filling up the entire triangular space between the quarters and the heels, completing the ground surface of the foot. The internal surface of the frog is very irregular, presenting three elevations and two depressions. The central ridge or division, extends from before backwards and upwards, splitting or dividing the heels, the lateral ones from before backwards, upwards and downwards, forming a curve. The two depressions between these ridges receive the soft cushion or ligamentous frog, completing the structure of the foot.

With this brief anatomical description of the foot, I trust I will be able to make my remarks comprehensive and interesting to all of your readers who are in any way interested in that noble and useful servant of man, the horse.

As this subject is one of interest and importance to owners of stock, I propose entering upon a more minute description of the causes, progress, terminations, prevention, and treatment of this disease, than any which has heretofore been published in the English, or any other language, that I am aware of. It will therefore be necessary to divide my communication, as I do not desire encroaching too much upon your columns, to the exclusion of other matter, perhaps equally important.—*American Stock Journal.*

[*Concluded in our next.*]

For the Wine, Wool and Stock Journal.

Cure for Scab in Sheep.

Los Angeles County, September 10, 1863.

EDITOR STOCK JOURNAL—DEAR SIR:—For the benefit of Wool Growers, I send you a recipe for the cure of scab—which has been used with great success in this county. It has the advantages of being cheap and not injuring the constitution of the sheep, or persons applying it, besides being a sure cure.

The recipe was procured by a shepherd of this county, from his father, in Ireland, who has charge of about 600 sheep there.

RECIPE.

To 1 gallon of Tobacco-water or Salt-brine, add 1 ounce Corrosive Sublimate; 1 oz Arsenic; 1 oz Sal Ammoniac; ¼ oz Blue Stone; ½ gill Oil of Vitriol; 1 gill Spirits of Turpentine. The compounds to be disolved in boiling water; the Oil of Vitriol to be added when the liquid is cold, and the Turpentine just before using. If a person has many sheep to doctor, he should have a yoke to hold them. A very simple one is a forked post, the fork about two feet above the ground, with a pin through.

Before applying the medicine, the sheep, when diseased badly, should be scratched with a long-toothed curry comb, or scarified with a knife. One man pours on the medicine while another rubs it in, with his hands well greased. A person's hands would get sore, in time, if not greased. To make a sure cure, the sheep should be gone over a second time, after an interval of ten days.

For snake bites, we scarify the wound, or where swollen, and put in salt, and seldom lose a sheep when taken in time.

Yours, truly, SOL. JEWETT.

A CHANGE.—The San Jose *Tribune*, which was some time since suppressed by the order of Gen. Wright, and afterwards continued, has been purchased by B. T. Murdock and A. B. McKee. These gentlemen converted it into a Union paper.

SAN JOAQUIN VALLEY AGRICULTURAL SOCIETY.

The Fourth Annual Fair of the San Joaquin Valley Agricultural Society, was held agreeably to announcement, on the 22d September, and continued four days. The hall was finely decorated, and the ceiling festooned with flags and pennants, the colors of nearly every nation, conspicuous over all the glorious Stars and Stripes—the whole agreeably interwoven with evergreens, etc. The above, as well as the general fixing up of the hall, was designed and arranged by Mr. Geo. West and his committee, and reflected great credit for its general brilliant appearance.

The number of entries was larger than at any former Fair, and I do not think the display of products of the soil, and in the departments of home industry, could be equaled or surpassed by any other portion of the State. The hall was nightly crowded with visitors, making it almost difficult to move around the tables. The Stockton Brass Band discoursed most excellent music during each evening, to the general good feeling and excitement.

The grand ball given by the Society, came off on Friday evening. It was the most brilliant assemblage ever gathered together, and eclipsing all former occasions of the kind. It will be impossible, on account of the limited room in our journal, to allude to each exhibitor, as the entries numbered several hundred, embracing all the products of the orchard, the garden, the farm, in great variety, as well as countless specimens of handiwork, by the ladies of San Joaquin county.

Few of the principal articles of cultivation may be alluded to, and we will pass on to the Stock Pens, and conclude by a few general remarks.

Tobacco.—This article was largely exhibited by Messrs. Houston & Craig, and embraced the varieties known as Virginia, Connecticut, Maryland, Kentucky and Cuba. The splendid specimens on exhibition, show that success has attended the culture in this valley. The leaves of some of the varieties were from two to three feet long, and of fine, healthy appearance. They also exhibited samples of manufactured tobacco, two boxes segars, made from California tobacco; 1 box segar tobacco; 1 box chewing tobacco. The samples handed us by the above gentlemen, we shall be pleased to exhibit to our friends, at our office. The number of entries in this department were numerous; among which, samples were shown by Thomas Edwards, Joseph Kile, E. B. Bateman, A. B. Wynkoop, Ezra Dane, Houston & Overheiser and others. The *Independent* says concerning tobacco:

"The first attempt to cultivate tobacco in this valley was made by Capt. Weber in 1849, but the experiment failed—the leaf turned black and rotted. A gentleman who has had long experience on the tobacco plantations of Cuba and Central America, gives us as his opinion that California must ultimately be a great tobacco-growing country. In the rich, alluvial deposits of San Joaquin and Sacramento valleys, the plant will grow luxuriantly, there being any extent of land that can be made available for the purpose of tobacco growing. A new and extensive field for industry is opening on the Pacific side of the continent, and new inducements are thereby offered to farmers and capitalists to seek a home in this marvelous land."

Silk Cocoons.—The only exhibitor in this department was L. Prevost of San Jose, whose indomitable perseverance and industry has made him the pioneer in silk culture in California, overcoming all obstacles. This business must yet become profitable, and be marked among the future resources of our State. The exhibition at San Jose, made by Mr. Prevost, was a credit and an honor to him. The same may be said here. The cocoons were exhibited in the form of a huge boquet and in necklaces, and formed one of the most novel and beautiful attractions in the hall. Mr. Prevost says that six years ago he first introduced the silk-worm into California, but met with failure. Each year since then he has tried again, but met with the same result, by the worms dying and the eggs hatching too soon. With a series of judicious experiments, however, he has finally succeeded, and, to his enterprise and energy, this wonderful and prominent branch of business may yet be ranked as the most successful among the many other wonderful resources of this our favored State. He has forwarded specimens of the raw silk manufactured by himself, to the manufactories in France, and has received certificates as to its most excellent quality. He will, at a future time, send the cocoons to France in bulk, to be woven there into fabrics. From his letter to the Board of Managers, we make the following extract:

"This is the third year I have experimented in my new culture, and I now consider the silk question settled. It can be made profitable, our climate being every way favorable to it. I have succeeded in simplifiying the labor to such a degree that one man can raise and take care of as many worms as six or seven persons would do in Europe according to the old system. A gentleman in Santa Barbara, last season, planted three thousand mulberry trees so as to be prepared to carry on the business on a large scale; while another gentleman, at the same place, will do the same next season."

We will, at a future time, give a more lengthy article upon this subject, from a visit we intend paying him, to see the whole process of silk culture in California.

List of Entries at the Stock Grounds.

HORSES.

Thoroughbred chesnut horse (imported) Nena Sahib, by Chase, dam by Irish Birdcatcher, 6 years old, exhibited by John Butterly.

Owen Dale, ch h, foaled 1853, got by Belmont, out of Maria Downing by Eclipse. This horse is an own brother to the celebrated mare Miami, and is exhibited by Henry Williamson, of Alameda.

Joseph, br h, foaled 1857, by Hermes, out of Patsy Anthony by Priam, exhibited by William Mathews, of Santa Clara.

Gen. Washington, br 4 years old, got by Lexington, dam by Muckle John.

Horses of all Work.

Count Bertrand, ch h, entered by I. C. Hamilton.

Fanny, b m, with sucking colt, entered by B. O. Burris.

Red Buck, ch c, 3 years old, by young Leviathan, dam by Fisher's Sir Charles, exhibited by B. O. Burris.

Hamilton Chief, b h, by Royal George, dam by Eclipse, 8 years old, exhibited by M. J. Dooly.

Two yearling colts by Chieftain, exhibited by W. L. Overheiser.

Arabian, a brown two year old, exhibited by John Barrett.

Chatanque, Gem, ch c, 3 years old, Black Hawk stock; by R. M. Johnson, Calaveras.

Fanny, br m, 9 years old, with colt by Sherman Black Hawk; H. J. Ostrander, Merced.

E. L. Stevenson, of Calaveras, b m Jenny Lind, 12 years; b f Cinderella, 3 years, bl f Flora Stevenson, 2 years; yearling filly, by Holden's Prince, not named; b m Maria, 9 yaars; yearling br c, Abe Lincoln, by Holden's Prince.

Chieftain, b h, 6 years old, owned by the Chieftain Club of Stockton.

Belle Haskell, b f, 3 years, entered by N. Douglass.

W. D. Ashley, bay mare Susan, her progeny Montauk, Jenny and Mary, aged respectively six months, one and two years.

Black Dan, bl h, 10 years, the property of Charles Blood.

Jack Downing, b c, 2 years, owned by Jos. Wiley.

Young Morgan Black Hawk; b c, 2 years. J. B. L. Cooper.

C. S. Hayden shows a sucking colt by Morgan Black Hawk.

Young Hooksett, gr c, 2 years, shown by H. C. Shattuck.

Thomas Richardson, of Stanislaus, has a horse called Sailor Boy.

J. C. Heenan, a grey gelding, 4 years, owned by Elijah Grover.

Isaac B. Parish has a pair of mares, Mary and Lucy.

Draft Horses.

T. D. Harp's, bl c, Monitor, by Clyde, dam by Sampson, 2 years old.

Two sorrel geldings, entered by R. Kimball.

Bay filly and bay gelding, entered by R. Kimball.

W. L. Overheiser's ch f, by Clyde, 3 years.

David McArdle's ch h, Suffolk Punch, 7 years.

E. L. Stevenson's b c Jacob Faithful, 2 years.

J. L. Carnduff's ch c Clydesdale, by old Clyde, and a colt by Clydesdale.

E. T. Lowry has ch h Davy Crockett, 5 years old, and ch m Dolly, with a colt, John Chinaman, by Davy Crockett.

S. H. Anthony, of Stanislaus, has a 3 year old bl c, Royal Hunter.

Roadsters.

R. Kimball's bay gelding.

J. L. Eoff's br h George M. Patchen, jr., by old George M. Patchen, dam by Monmouth Eclipse. Entered for exhibition and the Citizens' Purse.

J. A McCloud's ro f, Pocahontas, 3 years, and ro c Jim Cook, 2 years, both by Corn Planter.

James Journeay's br c Sebastopol, 2 yrs, by McCracken's Black Hawk.

E. L. Stevenson's br f, Rose, 5 years.

Bowen Bros. ch Annawan Chief, yearling, by Holden's Prince.

J. K. Doak's bl h Reuben, 6 years, a Black Hawk stallion.

Henry Trembly's b h Washtenaw Chief, 7 years, for trotting.

W. G. Prather's three year old, bc Young Rattler, for trotting.

N. Wormnell's ch g Honest John, eight years old, for trotting.

Michael Ryan's bc Green Mountain Boy.

E. S. Holden enters for exhibition gr m Mountain Maid and b g John.

Families of Horses.

Maurice J. Dooley enters six fine grade mares with colts, some by Hamilton Chief and some by imported Nena Sahib.

H. L. Stevenson, of Calaveras, shows his mare Jenny Lind with her colts Cinderella, Flora Stevenson, and her nameless yearling and suckling.

W. D. Ashley has mare Susan and her colts Montauk, Mary and Jenny.

Horses for Racing.

George P. Kirk, of Bellota, exhibits ch h Clem Williams, 6 yrs, by Jack Hawkins, dam by Young Leviathan; ch h Santa Anna, by Pilgrim, out of Clem Williams, dam, 5 yrs; ch c Glide Away, by Tartar, 4 years; ch g Shanghai, by Clem Williams, 3 yrs; and b m Susie Blair, by Belmont, 5 yrs, with colt by Clem Williams.

James B. Damrell shows b c Little John, by Lorenzo Dow, 3 years; ch f Canary Bird, by Lorenzo Dow, 3 yrs; and by Buck Rabbit, pedigree unknown.

O. D. Burtnett has b g Pandolphin, 3 years, by Jack Hawkins.

G. W. Trahern's ch f, Caroline, 3 yrs, by Trahern's Medoc; also ch c Warlock by Trahern's Medoc, out of the dam of Desdemona.

R. M. Johnson, of Calaveras, has b g Moses Taylor, 3 years.

S. Patterson has ro f Kitty Roan by Odd Fellow, 3 yrs; and b c Fox Ear, by same sire, 3 yrs.

J. E. Tyree has four flyers, viz: gr c Artillery, 4 yrs; bl c Henry Bell, by Belmont, dam by Grey Eagle, 3 yrs; ch c Shadow, by Belmont, 3 yrs; ch c Fresno, by Jack Hawkins, 3 yrs. He also shows a fine bay mare, Fanny Howard, by Illinois Medoc, with a ch f by Cosmo at her side, and she is now in foal to Langford.

J. Ober has ch f Anna Bell, by Belmont, dam by Johnson's Medley.

Elijah Grover's gr g Ned Buntline.

Matched Roadsters.

In this class we find but one entry; J. A. McCloud's roan geldings Bill and Dick, got by Corn Planter, a horse owned at one time in this county, since dead.

W. A. Mathews, of Santa Clara, has two brown fillies, by Stockbridge Chief, each 3 years old.

W. K. Reed shows a fine pair of bay geldings, by a Medoc horse, called George and Bill Medoc.

Walking Horse.

Anthony Huntea's gr m Grey Rose, for walking premium.

Mules.

H. L. Gentry has a pair of fine mules, aged 2 and 4 respectively.

Jacks and Jennets.

J. A. Shepherd shows a Jennet and Jack.

CATTLE DEPARTMENT.

Durham's.

W. L. Overheiser & Co. exhibits red and white bull, John Bull, 5 years old; and red cows Fancy and Fashion, and white cow Lucy 4th, owned by Patterson & Overheiser.

E. S. Holden has red bull Neptune, and white calf Blanco. Entered only for exhibition.

J. D. Patterson has roan bull 4th Duke of Airdrie.

A. Starkweather has roan bull-calf Massasoit; also, cow Lady Butman, and heifer Lunette.

Grade.

E. S. Blaisdell shows red yearling bull-calf Hannibal, by Dr. Holden's bull Washington.

W. L. Overheiser has 5 heifers entered as a grade-herd.

W. D. Ashley's 2 year old cow Lucy entered for milk.

Starkweather & Ashley's bull Young Turk.

S. B. Emerson's Grand Turk.

SHEEP AND HOGS.

W. L. Overheiser has a white Chester boar, sow and nine pigs; 3 Berkshire boars and 2 sows; 1 Essex boar and 2 sows; and also shows an Essex and a Berkshire boar, neither of which compete for premiums.

J. D. Patterson's 5 French merino rams; and 8 Spanish merino rams.

W. L. Overheiser has a black Essex boar, called Contraband.

Alfred Starkweather has Essex boar, sow and pigs; Chester boar and sow.

POULTRY.

Overheiser has a coop of black Spanish fowls, which are unrivalled in the production of "hen fruit."

W. H. Van Vlear, a coop of Japanse bantams.
John Kaller, a coop of Cochin China fowls.

Cross Breeds of Devons and Durhams.

John Morrison's red bull Washington, bred by Robert Blacow, of Alameda.

J. D. Patterson's, of Alameda, bull Rover, 2 yrs, and Meteor, a yearling.

Thoroughbred Devons.

J. D. Patterson's half Duke and Hiawatha, each 2 years old.

E. S. Holden has Tempest, 5 yrs, and 3 sucking bull calves by Tempest, named respectively Young Tempest, Hurricane and Tornado; also, cows Lady Kate, Fairy 2d, Sappho 6th, and Lady Kate 2d.

Cashmere Goats.

Exhibited by J. A. Brock, a buck and two ewes—15-16 bred; came across the plains this season.

Messrs. Peters & Jackson, of Stockton, received the first premium for best flour.

We shall endeavor to give the full list of premiums in our next number.

It seems to be the passion of every section of California to have some "peculiar institution" of its by which it preserves its individuality, apart from other portions of the State. Mariposa has her roaring cascade, that cleaving space, bedizzens the eye and bewilders the imagination. Calaveras boasts her tall *Arbore Vitae*, that seem to pierce with their lofty spires the blue vaults overhead; San Francisco has her lovely bay and matchless environs; Sacramento, annual *rodeo* of politicians, yclept the Legislature, and Stockton has her Fair.

It was the exceeding good fortune of the editor of this Journal to be present at the late Fair of the San Joaquin Valley Agricultural Society, and to experience the pleasure of beholding the genius of the sons of the soil, tried, and triumphant. The dignity of labor, the sovereignty of agrandizement, met a worthy defender in the person of the Lieutenant Governor elect, who, being no flatterer, paid a brief and truthful tribute to the potency of industry and the nobility of toil, in the brief address delivered by him at the Hall, during the Fair. The spacious Hall was thronged morning and evening, with the brave and beautiful of both sexes; and at the stock grounds, each afternoon, the ladies' stand seemed like one boquet of lovely flowers. The ladies—God bless 'em—as Micawber was wont to say, what would the gorgeous palace of industry, or the crowded race course, teeming with all the "purest and best" of our blood horses, have been without the smiles of the beautiful and modest women, whose eyes flashed forth exaltation, when the high mettled racer, wincing under the relentless spur, dashed madly onward to the goal of victory.

There is no agricultural society in America, we can truly say, of so short an existence and small a scope as the San Joaquin, that has ever reached a similar stage of prosperity in three short years. Its success is mainly owing to *proper and judicious management*, and economical administration; and, confident of its ultimate triumph, the indomitable men who have stood at the helm, through the stormy night, are just now beginning to see their patience and enterprise fully compensated, by the triumph of the agriculturists and mechanics of the San Joaquin Valley.

Here a Marvin, following in the footsteps of a McCormick, revolutionizes the work of the harvest field with a machine that cuts, threshes, winnows, and sacks the grain in a single turn of a driving-wheel Here a Houston shows the bewildered disciples of a Jean Nicot such a display of the soothing weed as would not shame the fair valley of Lynchburg, or the tropical cliffs of Vuelta Abajo. Here, a Despoix, like Ino before the infant Bacchus, dangles in the air a lucious cluster of Victoria Oilade Noir grapes, fit to tempt an idle Sybarite, that would complain of a crumpled rose leaf, or lap Apicius himself in Elysium.

Every day, labor cries to the sluggard, rise, and pursue some path in the broad field I lay before you. Remember the honors that an admiring and grateful world has heaped upon the heads of Morse, Home, Ericcson, and McCormick, and the chaplets of laurels she has intertwined with the memories of Fulton, Guttenburg, Whitney, and Daguerre. The same roads to opulence and honor are open to all who listen to the inviting voice of labor, as her words of welcome are chaunted to the ring of the forge and the clatter of the loom. When idleness rules, vice, ruin, and death, are the only returns she makes, while clear-eyed Virtue and golden-haired Opulence are ever the handmaidens of sunny-browed Industry.

The true agriculturist, the American country gentleman, if you will, is the superlative grade of man in the enlightened stage of society we are permitted here to enjoy. With Nature's postmark of honest labor, franked upon his countenance, he can pass current into any and all circles, without fear of being outranked by Earl, Duke, or King, for Industry herself is sovereign, and who shall disinherit her sons? We fancied that the farmers and mechanics of the San Joaquin Valley, whom we met at their yearly Synod at the shrine of Ceres, were representative men of the great family of producers, who guide the plow and feed the pregnant loom.

"Men who their duties know, and knowing dare maintain."

We cannot soon forget the gay throngs of lovely maids and noble matrons who crowded nightly the palace of Ceres, or the level plain devoted to the rites of the patron saint of the turf, Iago, by day. The rich and voluptuous strains of music, that relieved the sonorous voices of the eloquent men who told a thousand auditors the honor conferred on the human family by obedience to the Divine mandate, "By the sweat of thy brow shalt thou earn thy bread," are still ringing in our ears; and we can yet fancy that we are again on the crowded stadium, staring with eager eye upon the horses, the matchless sons of the "Kings of the Wind," their gaily-clad riders in silken garments landing them at the goal of triumph, covered with foam, dust, and glory. May the delightful scenes remain in our memories forever.

The show of stock was particularly fine, and the parade excelled any former occasion, in the number and quality of the equine race. The showing of the splendid Irish horse Nena Sahib, capering about in the sunlight, till every hair of his glossy coat seemed tinged with virgin gold; the gay and aristocratic Joseph, his bonny head tossed disdainfully in the air, and his dark brown hide shining like polished rosewood; and last, but not least, the colossal and Patrician-like Owen Dale, grand and austere as an old Roman hero, winning the hearts of all horsemen, alike by his splendid form, beautiful color, and above all, the excellent disposition he possesses. These three splendid steeds were a whole exhibition in themselves. Handsome they all were, indeed, the latter

being tritely styled "a most sumptuous steed, with a hide of silk and a heart of oak."

The racing nags, though few, showed quality and symmetry as well as speed and bottom. The race between Damrell's Little John and Kirk's Glide Away, was a magnificent contest, the former winning gallantly by a length in 1:48½, which time would not disgrace Margaretta, Volscian or Langford. And as for the match between Pandolphin and Santa Anna, it was the very acme of a desperate encounter between two young and untried horses, who give promise of great ultimate prowess.

The roadsters were a credit to the State. Where shall we go to find such a galaxy of trotters as those who thronged the stables of the course, beginning with Kentucky Hunter, who trotted to wagon in 2:38, and George M. Patchen, jr., who went to the half-mile in 1:15, and concluding with Hamilton Chief and Royal Clyde, each of which weighs over thirteen hundred pounds, and can trot his mile inside of three minutes. Nor must we forget Washtenaw Chief, Reuben, Emigrant, Young Rattler, and a score of clever wagon pullers, that lent great attraction to the gay and exciting scenes.

Want of space prevents our publishing, in this number, the excellent address of the President of the Society, and the Annual Address, by the Hon. T. N. Machin, which constituted the most interesting features of the evening's exercises. We beg to acknowledge attentions and courtesies from George West, Esq., Superintendent of the Hall; to the Secretary of the Society, John C. Reid, Esq., and to Messrs. Barrett, Webster and others, assistants. The manifold nature of our Journal forbids that we should encroach upon the limits of other equally interesting subjects, by devoting an excess of space to the San Joaquin Fair. We close our article, therefore, with gratitude to the President and Managers of the San Joaquin Valley Agricultural Society, for their courtesy to us, and our heartfelt wishes for their unbroken success, in the shadowy distance of the future.

THE SANTA CLARA VALLEY AGRICULTURAL SOCIETY'S FAIR.

HORSES.

Best thoroughbred stallion, four years old or over—Langford, owned by Col. E. S. Lathrop.

Best thoroughbred stallion two years old—Manassas, owned by H. C. Mallory.

Best thoroughbred mare four years old or over—Mary Chilton, owned by E. S. Lathrop.

Best thoroughbred suckling filly—Belle Boyd, owned by H. C. Mallory.

Best brood mare with her foal, not thoroughbred—Musisidora, owned by E. S. Lathrop.

Best roadster stallion three years old—D. S. Cook, owned by Wm. Quin.

Best roadster mare four years old and over—Nelly Gray, owned by Ari Hopper.

Best colt or filly, not thoroughbred, one year old—Troy, owned by F. S. McGirr.

Best stallion for all purposes—Crossbite, owned by Winters and Hopper.

Best Jack—by Young St. Louis, owned by H. W. Scales.

Two fine colts by Suffolk Punch—a special premium to James Lick.

CATTLE.

Best pure blood Durham bull, three years old, premium awarded to Henry W. Scales.

Best pure blood Durham bull, two years old, premium awarded to Dr. L. H. Bascom.

Best pure blood Durham cow, two years old, premium awarded to H. W. Scales.

HOGS.

Best fat hog of any breed, premium awarded to F. Gates.

Best Berkshire sow, premium awarded to C. Peebles.

Best Suffolk boar, premium awarded to C. Peebles.

Best Essex boar, premium awarded to C. Peebles.

PRODUCTS OF THE FARM.

Best one hundred pounds of wheat, representing ten acres, premium awarded to J. H. Hardwick.

Best one hundred pounds of barley, representing ten acres, premium awarded to J. H. Hardwick.

Best twenty-five pounds of manufactured tobacco, premium awarded to R. Gabriel.

Best ten acres of Indian corn, premium awarded to J. H. Hardwick.

Best collection of products of the farm, garden, vineyard, household, etc., premium awarded to C. Peebles.

PICKLES AND PRESERVES.

Best one gallon pickles, premium to Mrs. J. H. Hardwick.

Best collection of dried fruit, premium to Jessie Hobson.

Best collection of jams and jellies, premium to Mrs. R. J. Moody.

PORTION OF MANUFACTURES.

Best specimen of cabinet work, premium awarded to John B. Price.

CALIFORNIA WINES AND SPIRITS.

Best two bottles of brandy from the peach, premium to J. R. Lowe, Sr.

Best two bottles of brandy from the cherry, premium to J. R. Lowe, Sr.

Best two bottles of California White Wine, premium to Wm. O'Donnell.

Best six bottles cider, premium to J. R. Lowe, Sr.

Best soda water, premium to Winslow & Williams.

ORCHARDS, VINEYARDS, NURSERIES, ETC.

Best orchard of not less than two hundred trees, premium to D. T. Adams.

Best vineyard, premium to J. E. Brown.

Best nursery fruit trees, premium to B. S. Fox.

Best nursery, forest, or ornamental trees, premium to Wm. O'Donnell.

Best green hedge, premium to Dr. L. H. Bascom.

AGRICULTURAL IMPLEMENTS, ETC.

Best buggy, premium to Edward Smith.

Best two-horse wagon, premium to J. Ingham.

Best set horse shoes, premium to Dewey & Dimmock.

FRUITS AND FLOWERS.

Best single variety of nectarines, premium to B. S. Fox.

Best six varieties of apples, premium to L. H. Bascom.

Best evergreen wreath, premium to L. Prevost.

Best variety of boquets, premium to Wm. O'Donnell.

Best collection pot plants, premium to Wm. O'Donnell.

Best single variety of apples, premium to J. R. Lowe, Sr.

Best dish of pears, (select,) premium to Wm. O'Donnell.

Best dish of apples, premium to J. E. Brown.

Best single variety of peaches, premium to D. T. Adams.

Best collection of quinces, premium to D. T. Adams.

Best variety of strawberries, premium to C. Peebles.

Best single bunch of black grapes, premium to J. B. Bontemps.

Best single bunch white grapes, premium to D. T. Adams.

Best collection of white grapes, premium to L. Pellier.

Best twenty varieties of apples, premium to B. S. Fox.

Best collection over twenty varieties apples, premium to D. T. Adams.

Best collection of twenty varieties pears, premium to D. T. Adams.

Best twelve varieties of pears, premium to L. Pellier.

Best collection of plums, premium to D. T. Adams.

MISCELLANEOUS.

Hams, first premium, Cary Peebles.

Smoked bacon, first premium, John Hasinger.
Lard, first premium, J. H. Hardwick.
Butter, first premium, J. H. Hardwick.
Bed quilts, first premium, Mrs. Caroline E. Dowers.
Sewing machine, first premium, Grover & Baker.
Leather work, premium to Miss Lizzie O. Putney.
Specimens of oil paintings, premium to Miss Lizzie O. Putney.
Worsted embroidery, premium to Mrs. Yates.

Special premiums were awarded to other articles, all of which deserved favorable mention.

STOCK GROUNDS.

What stock was exhibited was worthy of mention, and justly entitled to premiums. Ari Hopper had a number of fine horses, and was one of the largest exhibits on the gronnds—among which, was a two year old colt—Blue Dale, by Owen Dale; Crossbite, by Belmont; Sophie McLane, a four year old Belmont filly; two yearling Crossbite colts, and a three year old brood mare, by Belmont, dam, Julia Miller.

J. B. Fox had Victoress, four year old mare, by Belmont; Susie Martin, two year old mare, by Owen Dale.

John H. Moore—yearling colt, Belmont, gr. dam, Eclipse—a fine colt.

A. Weller, Melpitas—grey stallion Slasher, six years old, by Bulwer, out of Barlow.

Francis McGirr, Troy—yearling colt, by Comet, dam by Belmont, etc., etc.

Henry Seales, Mayfield, made a fine exhibition of thoroughbred Cattle, and his famous Jack, all of which took premiums.

The races were well attended, and passed off generally well.

During the last days races, the splendid imported horse, *Hercules*, owned by Shumway and Jenkins, of Mountain View, was exhibited on the track, and attracted great attention, by his fine symmetry and proportions. A description of Hercules will be found in our August Number. He is, without doubt, the finest horse in the country, and will make his mark in the future records of the turf.

The Society's purse of $50, for race, for two year olds, single dash of a mile, was won by "Squatter Boy," owned by Ari Hopper. A private trotting match for $200, double teams, mile and repeat, was won by Hough & Baker, proprietors of the well known Livery Stable on Santa Clara Street. This was the best race of the week, and occasioned the greatest interest and excitement.

The officers of the Society did all in their power to make matters pass off satisfactory. The Gate Keeper, Mr. Thos. Campbell, kept at his post, faithfully, through the burning sun, yet always having a pleasant word for all.

To D. T. Adams, Wm. O'Donnell, Dr. Bascom, we are indebted for a generous supply of luscious fruit—such favors will be remembered.

The Fair was a failure, owing to causes heretofore mentioned, much to be regretted; but is hoped that, with the uraassnce, given by men of influence and means, the Society may be freed from debt, and the clouds which have hung over past proceedings.

It is but just to say that the Premiums were paid in cash to each winner, on the last evening of the Fair, at Armory Hall, as the names were respectively called.

What is being Done amongst Us?

THERE are few that are aware what is being done at present on this Coast, in the way of Manufacturing. Besides the Foundries and Machine Shops, that are turning out immense quantities of work in their line, keeping all the force that it is possible to command, working day and night, and yet they are unable to supply the damand; and not theirs alone, but every description of mannfacturing has almost doubled within the last twelve months, and still the demand increases. Even the Fine Arts are being appreciated, and receiving the attention they deserve. Painting and Sculpture are being nursed with tender care, and ere long, we can boast of faultless Landscapes and Statuary, that shall speak the fame of our own masters. But a few days since, we were shown specimens of work in the Carving and Furniture line, and we confess our pride in knowing that they were produced by our own workmen and artists. In the show windows of B. P. MOORE & Co., corner of Sansome and Pine Streets, may be seen some of the most exquisite specimens of workmanship in the way of wood carving, that it has ever been our fortune to look upon. One piece in particular, a California Crested Quail, carved in Sycamore, was so perfect that the most acute observer would scarcely distinguish it from the real bird. It could have no greater compliment than was paid to it by a bystander, when he asked the name of the bird, was answered that it was a California quail, in reply he said he knew it was, but he had never seen one of that color before. There were other unique specimens intended as ornaments for furniture, most of which were done to order. What more durable monument to refinement could a gentleman have in his house, both to enjoy himself and to hand down to posterity, than beautiful work of this description. It would well repay one to visit the store of Messrs. M. & Co., to see the elegant specimens of workmanship they have on hand, and in every stage of construction.

Messrs. SAXBY & BYINGTON, the well known Livery Stable keepers, on Kearny Street, are fitting up an elegant Stable on Bush Street, above Montgomery, with all the modern improvements. It will be completed by the middle of the present month, when we shall take a look through the establishment, and tell our readers about it.

WE have used McFarland's Essence of Ginger, manufactured by Chas. Heffernan, Merchant Street, and find it an indispensable article for family use. Heffernan's Excelsior Stomach Bitters, and Essence of Peppermint, are among the popular articles at this manufactory, 407 Merchant Street. *See advertisement.*

Messrs. FARISH & Co., whose card appears in another column, are Agents for the California Rosin, of John Hart & Co., Marysville. It is put up in cases, one barrel to the case, and is an excellent article for Soap Makers, by whom it is preferred, over the Eastern.

Messrs. CONE & HAY, Pacific Fruit Market, have Apple and Grape Cider, fresh every day. The *Big Squash* can also be seen at their Fruit Stand. Two *good* reasons for giving them a call.

Sketches of the Washoe Mining Region.

BY EDWARD VISCHER.

We have received from Mr. Vischer, a complete collection of the photographs, graphic sketches from nature, in 25 numbers—comprising the great centre of the Washoe Mining Region, with an interesting addition of the surroundings of the Washoe Mountain Range, or center side. The whole is headed by a highly suggestive title—*Vignette*, a Bivouac of Prospecting Washoe Miners; the whole is in the convenient shape of a neat portfolio, with a description pamphlet, and cannot fail to please any one interested in the mineral resources of the country east of the Sierra Nevada. The execution of the drawing, struck us as rather original in conception, as by the aid of the photograph, the public are made acquainted with those wild scenes beyond the mountains, in all the force and novelty of spirited sketches, taken on the spot. While we congratulate Mr. Vischer on his felicitious selection of subjects, and the characteristic grouping of especially the latter numbers, which will interest any lover of nature, the graphic faithfulness of the mining localities, particularly, is attested by every one who has visited the Washoe Mining Region, and has seen these Sketches. Several of these views have also appeared in the *London Illustrated News*, and a proof copy of the collection sent to London. It has been a valuable reference to the Commissioner for Nevada Territory, who, for his splendid array of minerals from Washoe, obtained a premium, and by their aid found himself enabled to explain the localities and formations from which their ores were procured. That first copy sent to the Exhibition, was subsequently transferred to the British Museum. The great delay in getting up these collections, through a tedious and expensive process, has induced Mr. Vischer to condense the whole into a pamphlet edition. It is now before the public, convenient for mailing, and at a moderate price. No more beautiful present could be sent to distant friends, than a set of these Sketches.

We acknowledge the receipt of a Complimentary Ticket, from W. M. Gillespie, Esq., Secretary for the Washoe Agricultural, Mining, and Mechanical Society, to be held at Carson City, Oct. 12th. In a letter from the Secretary, he says—"Everything looks encouraging, and we *shall* have a Fair which, from present appearances, will rather astonish the "natives" (I mean the "Washoeites,") at least, whatever may be its effects upon the visitors from our more favored Sister State, (California.)"

We hope it may be in our power to attend the first "Fair" of our enterprising neighbor over the mountains, and in the meantime, they have our best wishes for their success and triumph.

Give Credit.—The Sacramento *Union* boldly filches original articles from our columns, for their Agricultural Department, without a word of credit.

The November Number will contain a full report of the doings of the *State Fair at Sacramento.*

MARDEN & FOLGER'S

CELEBRATED FAMILY COFFEE,

WHICH HAS STOOD THE TEST IN ALL THE principal Hotels in the City, (and is now used by them), does *not* contain any of the unwholsome ingredients to give it color and strength, but will prove by a trial to have the

NATURAL COFFEE FLAVOR AND STRENGTH.

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Pioneer Steam Coffee and Spice Mills,

220 FRONT STREET,

Between Sacramento and California, SAN FRANCISCO.

FINE ARTS.

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ROOS & WUNDERLICH,

Depot of Goupil & Co.

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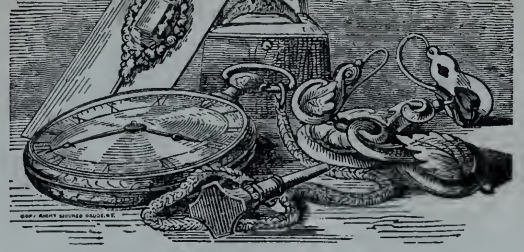
N. B.—Samples can be seen at the office.



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Pacific Fruit Market.

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VISCHER'S SKETCHES
OF THE
Washoe Mining Region and Surroundings, and Panorama from the Summit of Mount Davidson.

In Envelopes, convenient for mailing. Price, FIVE DOLLARS.

Also, the same Views single, for Photographic Albums, or larger, offering a convenient choice of subjects. For sale at
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LIVERY & SALE STABLES,
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Stalls to Let for Emigrant and other Horses.
Superior Saddle Horses, and Buggies to Let.

THE UNDERSIGNED, HAVING LEASED THE above Stables, offers his services to the public of California as a Horse Tamer, Breaker, and Trainer. Baulky Horses made to draw, or no charge. No abuse or physical force is used. Special attention will be paid to the selling of Horses on commission. Public patronage is repectfully solicited. EDWARD ALLEN.

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Steam Engines on hand and for sale by
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REAPERS, MOWERS,
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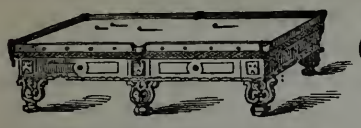

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CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SAN FRANCISCO: NOVEMBER, 1863. NUMBER 11.

A FEW WORDS ON HORSES.

BY RUTH HALL.

As it is a recognized fact that, with a strain of good blood to begin with, by the aid of skillful and scientific crossing and culture, horses may almost be raised to order, it is well to accept instruction from any who may have proved themselves masters of their art. Let us, therefore, give heed to the example of the Arabs, who still stand at the head of stock-raisers, even in the nineteenth century. With them we find that more stress is laid on the quality of the dam than the sire; that a first class mare cannot be bought from an Arab, since he knows from tradition what watchful experience is now teaching us—that there is scarcely a disease which is not inherited more frequently from the dam than the sire. Hence the fastidious care shown in the selection of brood mares, and the care bestowed on them and their offspring.

The barbarian has learned—let us hope his example may sometime benefit his Christian brethren—that gentle treatment and intelligent usage of the colt is all the breaking required; that not to fear man is one of the most important lessons his intelligent companion can acquire; and that, by so identifying their interests, he can obtain willingly all that *we* rend from him by the aid of whip and spur; that is to say, the utmost rate of speed of which he is capable, and willingness to continue his pace until death, if need be.

I hope, in time, not only to see horses intelligently and justly dealt with, but that every farmer as well as every professional horse-raiser, and those who cultivate the animal for sporting purposes and for profit merely, will give more attention to the stock they propose to propagate, caring more that the mare shall be free from blemish, whether hereditary or acquired, and shall be young, vigorous, not broken down with hard labor, of roomy form and good blood, than that the sire should be some fashionable creature with a long pedigree. On the road, on the farm, or as draught horses, use, if you please, mares in the splinter or any other infirmity, for they are tougher than a horse, less liable to injury, and will do more work on less feed. But for breeding purposes select and keep the *very best.*

Consider the difference between the kind of coercion used by the enlightened American in breaking a colt—the torture to which the animal is called on to submit by that diabolical instrument, the bitting bridle, hurting the sensitive delicacy of the skin, in many instances inauguarating the life-long suffering of a tender mouth; then the checking, drawing the head into an unnatural position most painful to the muscles, and, while the horse is irritated and fretted with pain, the ignorant endeavors of a still more ignorant and brutal man to teach a horse to submit to the saddle or harness, to learn his paces—all this to be taught by suffering only, the whip the sole persuader! Contrast this with the education afforded by the uncivilized Chilian. Allowing common sense a word, even in such an affair as training

a colt, throwing preconceived prejudices aside, which is most likely to be successful in obtaining intelligent obedience? If I could see the bitting bridle thrown aside, the check rein, especially for draught horses, abolished, and the absurd practice of docking done away with, which virtually proclaims that man better than the Creator knows how to make a perfect and beautiful animal, I should be more willing to acknowledge the progress of the nineteenth century. This latter barbarity, now considered by the best judges of horses to be both injurious and disfiguring, as weakening the spine and often inducing permanent injury through the carelessness or ignorance of the operator, is of much less frequent occurrence than formerly. For that slight amelioration, and the hope arising from it, let us be thankful.

The points of a thoroughbred are laid down by Stonehenge, and are a good criterion to judge from.

The color of the thoroughbred horse is now generally bay, brown, or chestnut, in ninety-nine cases out of a hundred, while in the decendants of Eclipse it is often a beautiful golden bronze.

While on the subject of blood, I may be permitted to remark that "Observer," one of the authorities quoted by Frank Forrester, says, "The purer the blood the more likely it is to be transmitted, and whichever parent boasts the purest strain will be most generally represented in the offspring."

The prairie States, where level, beautiful stretches of ground, form natural tracks free from bog or stump, seem to court the formation of trotting matches, and we find, indeed, this to be one of the popular pastimes; and on the course of Kalamazoo Flora Temple achieved her most brilliant victory. It has been proved, after much contradiction, that it is a full mile in circuit, and it is a fact of world-wide notoriety that the queen of the trotting turf circled it in the almost fabulous time of 2·19. It was no small stake which could induce the owner of this priceless mare to exhibit her prowess, and proves that prairie farmers think little of money when horse flesh is concerned, and from this we draw the conclusion, that in the future few States will be able to compete with them. No one who has once seen the little bay mare and her style of going, will ever be at a loss for a minute to characterize it by some word probably coined in their own brain from the novel sensations experienced on looking at her low, level, equable gait, which does not impress as very swift, so void of strain, so easy is every motion, until compared with the one going by her side. Her exceeding speed has been very scientifically accounted for by her build and perfect concentration of means of locomotion, though few but sporting men would pause to reflect on the cause of her swiftness as she fled around the circle without other apparent means of coercion than her own ambition, her tiny hoofs ringing measured music on the track, and neither break nor skip marring the harmony, as her nervous ears evinced her quick and sympathetic intelligence. By her side on the occasion of her appearance at Chicago, went Princess, once called Topsy, whom it was my good fortune to have seen under happier auspices soon after making her début. No ill-temper then prevented her from doing her best, and though she paced a step or cantered a length or so, (she had just begun her trotting career,) she lost not once or gained in the opinion of the judges, and caught step with wonderful rapidity. Her future, which I foretold, and was laughed at for my prophecy, was soon after as brilliant as could be desired. Her form was handsome, her style of going lively, her action spirited, and, had it not been for some as yet not well accounted for reason, the bay beauty would have found in her a dangerous rival. Nevertheless, when she appeared again on the Chicago track to compete with Flora, she rearing and bit as they took off her blankets, and a man started up from the grass almost in front of her on the back of the track caused her to break and balk in such a style that her driver declared, from his knowledge of her temper, nothing further could be done with her, and Flora waited beyond the half-mile pole, so as not to distance her in the first heat, and disappoint the thousands of spectators who had crowded to see her trot.

On the Garden City Track, also, Lady Palmer as well as Topsy made her first impression as a trotter. Her birthplace is matter of dispute. She was called an Indiana horse when owned by Daniel Palmer, and few suspected at one time the rate of speed of which she proved herself capable afterward, and when she attained celebrity it was claimed she came from Kentucky. However that may be, a more docile, gentle animal never trotted before a sulky, and a speedier need not be, as Robert Bonner, now a connoiseur in horses, soon ascertained, and became her purchaser. She left behind her a beautiful bay colt, named Johnny, who promises fair to equal his renowned dam.

From the earliest days of the metropolis of prai-

rie land, the inhabitants boasted of a track, rudely enclosed, indeed, but dry and level, the property of William Myrick, a devoted lover of the horse, and here friendly contests took place between those who prided themselves on their horse flesh, close to the banks of the beautiful Lake Michigan. Of course the grand stand was very primitive; still, the rules of the jockey club were strongly insisted on, and while Indians still bivouacked in the neighborhood, when waiting their annual payments, and herds of deer have been driven into the track and there captured, still the inhabitants had their spring and fall meeting, in imiatation of Long Island. Where such devotion to an idea prevails, perfection is often the result, and so we find the prairie horses exemplified in Reindeer, Jack Rossiter, Lady Jane, and others, sufficient to make my treatise merely a catalogue.

In roadsters, also, Chicago stands preeminent, her merchants and business men rarely condescending to a horse not capable of doing a mile in three minutes easily, and the road to Cottage Grove, before the railroad was laid down, was the scene of many friendly contests, and no inconsiderable amount of bragging, while the ice on the river, which divides the city, became, during the winter, the chief place of resort.

Frank Forrester says, speaking of fairs in the Western States:

"Aside from the regular exhibition and trial of horses at the agricultural fairs, it is becoming quite customary, either for the society or an independent one, to get up an exclusive horse show sometime in the spring or fall, where liberal premiums are awarded, and decided on the most part on the ground of speed.

"The general introduction of carriages had nearly done away with saddles, except in the most sparcely settled parts of the country, and with drovers; so that in towns it was difficult ever to obtain a saddle horse at a livery stable, until an original idea was developed by the exhibition of ladies riding at the agricultural fairs, which has grown so rapidly into public favor as to become an institution of itself, and the most attractive feature of the whole exhibition.

"The result of this practice has been that gentlemen cavaliers, being ashamed to be outdone in boldness and skill by the ladies, have taken to the saddle, as escorts of the fair riders; and a taste for horsemanship once created, and the facilities of equipment at hand, there is a great and growing demand for saddle horses, both in town and country, and many of the best nags of this class are in the hands of girls, who have trained them to an admirable style of performance. The docility and obedience of the highest spirited horses in the hands of a resolute woman is truly wonderful. There is scarce a courser in the country that will not yield to a petticoat. Even old Grey Eagle, that had not felt the saddle for years, and was pronounced by his owner as impracticable, bore a woman proudly on his back at the State fair in Cleveland, in 1856. And the fiery Hassan yields kindly to the reins of his mistress as he bears her over the field like the wind, with his wide, thin nostrils, flashing eyes, and tail like a great banner in breeze.

"In Illinois an Indiana the mania took root almost spontaneously, and the fairs now are always largely attended by lady equestrians, who give grace and beauty to the scene, as well as encourage a branch of horse raising too much neglected—animals expressly suitable for riding, which healthful exercise is only too much neglected of late years.

"One point on which the American horse differs extremely, and here most advantageously, from the European animal, is his greater surefootedness and freedom from the dangerous and detestable vice of stumbling. It is only necessary, in order to convince one's self that this is a real and not imaginary difference in favor of our horses, to examine the knees of the hack horses let for hire, either in the cities or the rural villages of the United States, as compared with those of similar English localities. In this country a broken knee is one of the rarest blemishes, if not the very rarest, one ever encounters in the horse.

"Of horses let for hire in England, unless it be by a few crack livery keepers, in London, in the universities, and in one or two other of the most important towns in hunting neighborhoods, the majority are decidedly broken-kneed. Nor is it at all unusual to meet perilons stumblers even from gentlemen's stables, and this in the case of animals whose appearance would indicate anything but liability to so manifest and disqualifying a fault.

"I ascribe the immunity of the horse on this side of the Atlantic from this fault, first, to the fact that both the pasture lands and the roads are far rougher, more broken in surface, and more interrupted by stumps, stones, and other obstacles here than in the longer cultivated and more finished countries of

Europe, which teaches young horses to bend their knees and throw their legs more freely whilst playing with their dams in the field, and also lift and set down their feet with far greater circumspection, even on our great thoroughfares, many of which are scarcely superior to a French crossroad, and few of which are equal to an English one, especially in the autumn or in the spring, when the frost is coming out of the ground. To this admirable quality of the American horse must be added his extreme good temper and docility, in which he unquestionably excels any horse in the world. And I consider the general horse of America superior, not in blood or in beauty, but decidedly in hardihood to do and to endure, in powers of travel, in speed, in docility, and in good temper, to any other race of general horses in the world."—*Patent Office Reports*, 1861.

CULTIVATION OF MADDER—No. 2.

The cultivation of madder having been urged upon American farmers, we copy the following recommendations, *founded on experience*, which were published a few years ago in a Patent Office Report on Agriculture:

"A location facing the south, or south-east is to be preferred. In choosing a soil, it should be neither too wet nor too dry, too stiff nor too light. A deep, rich, upland, sandy loam, free from foul grass, weeds, stones, and stumps of trees, on which there has been cultivated a crop of potatoes, peas, wheat, or Indian corn, the season previous, perhaps, would be the best, bearing in mind that the presence of calcareous matter in the soil is essential for the production of good madder to be used in dyeing. The land should be plowed deep, once in September and again in October, and permitted to lie during the winter in ridges, to be acted upon by the frost. As soon as the spring has opened and the ground become dry and warm—say on the first of April in Tennessee, the middle of April in Ohio, and the first of May in New York—plow again deep, harrow well, and strike it into ridges with a one horse plow, three feet wide, with four-foot water furrows between; or make the ridges seven feet wide at once, raising them, if the ground be moist or wet, ten or twelve inches, or if the land be dry, six or eight inches above the natural surface; then, with a light harrow, level and shape the ridges, as in a well formed bed for carrots or beets.

"The madder sets, or seed roots, are best selected when the crop is dug in the fall. Those which grow horizontally, having numerous eyes, are regarded as the best. They should be separated from the lower roots and buried in a cellar or pit, where they are to remain during the winter; or they may be covered with earth in heaps, after the manner of storing potatoes in the field. If they are not dug in the fall, it must be done early in the spring, before they begin to sprout. Previous to planting, they should be cut or broken into pieces, containing from two to five eyes each—say three or four inches in length. The time of planting is as early in the spring as the ground can be got in good order, and there is no longer any danger from severe frosts. With the land prepared as directed above, stretch a line lengthwise along the beds, and with a hoe, or some other suitable implement, make a drill from two to four inches deep, according to the moisture or dryness of the soil and climate, along the edges of the beds, say six inches from the margins, and then other drills through the middle, about two feet apart. Into these drills insert the sets ten inches asunder, and cover them from two to four inches deep with fine earth, patting it lightly with a hoe, after the manner of planting Indian corn.

"As soon as the young plants are seen above the ground, they should be carefully hoed, so as to destroy the weeds,—an operation which must be repeated as often as the weeds are liable to be injurious to the crop. If any of the sets have failed to grow, the vacancies may be filled by taking up and transplanting parts of the strongest roots, which may be done in June or July. When the plants are ten or twelve inches high, the tops are to be bent down to the surface of the ground and covered, except their tip ends, with earth shovelled from the alleys. They should be bent outward, as well as inward, so as to fill the vacact spaces of the beds—say about a foot in each direction. After the first covering, repeat the weeding, if necessary, and run a single horse plow through the alleys several times to keep the earth mellow and clean. As soon as the plants again become ten or twelve inches high, bend down and cover as before, repeating the operation as often as the plants will admit, which is, commonly, three times the first season. The last time may be as late as September, or later, if there be no frost. By covering the tops in this manner, they throw out new roots, with which it is designed to fill the ground as soon as possible. When the vacant spaces are entirely filled with the plants, there will be but little chance for the growth of weeds, but all that do appear must be pulled out by hand.

"The second year, the beds must be kept free from weeds, and the tops of the plants covered with earth from the alleys as in the preceding year, which may be repeated two or three times in the course of the season. If the alleys now present deep narrow ditches, and it is difficult to obtain good earth for covering the tops, that operation may be omitted this season, after the second time. Care should be taken, when covering the tops, to keep the edges of the beds as high as the middle, otherwise, the water from heavy showers will run off and the crop suffer from drought.

"The third year, very little labor or attention will be required, as the plants now cover the whole ground, and but few weeds appear. Should any weeds be seen, however, they must be eradicated, otherwise their roots will cause trouble when harvesting the madder. The crop is sometimes dug the third year, and if the soil and cultivation have been good, and the seasons warm and favorable, the roots will be of good quality, but generally it is much better in quality and more in quantity, when left until the fourth year.

"The digging or harvesting of the roots may be performed from the middle of August to the end of September. The first thing to be done is to remove the tops of the plants, and about half an inch of the surface of the earth, with a sharp edged shovel, then take a plow of a large size, with a sharp coulter, and a double team, and run a furrow outward, beam-deep, around the edge of the bed; stir the earth with a fork or an iron-toothed rake, removing it from the bottom of the furrow, and carefully picking out all the roots, then plow another furrow beam-deep, as before; remove the earth, pick the roots, and thus proceed until the whole bed is completed.

"As soon as possible after digging, take the roots to some running stream, if at hand, but if not, to a pump or well, to be washed. Take a large round sieve, from two and one-half to three feet in diameter, with the meshes about as open as those used in winnowing wheat. Into this sieve, put half a bushel of roots at a time, and stir them in the water, pulling the bunches apart, so as to wash them clean; then lay them on moveable platforms, about two inches deep to dry in the sun. These platforms should be placed side by side, not far from the farm building, in rows running east and west, with their ends north and south, leaving sufficient room to walk between them. The south ends may be elevated about eighteen inches, and the north ones about six inches from the ground. After the second or third day's drying, the roots should be protected from dews at night, and from rain, by placing the platforms one upon another, and covering the uppermost one with tarpaulins or boards. Then spread them out again in the morning, or as soon as danger from rain is over. In five or six days of ordinary fine weather, the madder will be sufficidntly dried to be stored away preparatory to grinding.

"If the climate is not hot enough to deprive the roots of their moisture, and thus render them fit for grinding, resort may be had to stoves or kilns. As soon as they are thoroughly dried, they may be taken to a barn and gently threshed with flails, and deprived of their rootlets and particles of dirt by winnowing; or what would be better, if the culture were conducted on a larger scale, they might be broken in a cast iron bark mill, or by some other machinery appropriate for the purpose, so that the particles thus reduced could readily be fed into a common grist mill, or perhaps a mill constructed of iron. Let it be borne in mind that if the roots are not broken and ground immediately, they will gather dampness from the atmosphere, so as to prevent them from grinding freely. When ground to the requisite degree of fineness, the madder is fit for use, and may be packed in barrels like flour."

The quantity of madder imported into the United States for the fiscal year ending June 30, 1856, was 20,847,472 pounds, and the value was estimated at $1,671,805. During the fiscal year 1858–9, the imports of this dye were valued at $2,200,541.

Within the present year the price of French madder has been quoted in the New York market at prices ranging from 13c. to 15½c. per lb., and in the Boston market at from 12½c. to 14½c. per lb. Dutch madder in the New York market, at from 13¾c. to 15c. per lb., and in the Boston market at from 13c. to 16c. per lb. In San Francisco there are no quotations.

We have stated that the yield of Dutch madder is about 2,350 pounds an acre, and that of French 2,800 pounds of roots or 2,240 pounds of ground madder. Now, assuming that at a California farmer could raise, on an average, about as much as either—say 2,250 pounds to an acre—and that, we think, is no very extravagant assumption—and that he could sell it for a "bit" a pound, which is less than the lowest price we have ever seen quoted, it follows that the amount realized by this calculation would be $281 25 an acre.

We have purposely made this estimate a *very* low one, in order that it may be under instead of over the mark, in order to excite no extravagant expectations, and having laid these facts and figures before our readers, we leave it to them to make their own calculations, in order to discover whether, in their judgment, madder is a crop which will "pay."

The International Fare at Hamburg.

This great exhibition was formally opened according to announcement, July 14th, amid the most enthusiastic demonstrations. The various departments were well represented, but the show of animals was unusually large and fine. The exhibition of sheep, particularly, was the best and most extensive ever seen in Europe; more than seventeen hundred head being entered. It is gratifying to know that although the American contribution to this department was small, it was such as to excite no little admiration, and even envy, on the part of the sheep breeders of Europe. The specimens consisted of *twelve* animals from the flock of George Campbell, Esq., of Vermont, and to these were awarded no less than three prizes, viz: the first prize for buck of best quality, the first prize for the buck yielding the greatest quantity of wool, and the second prize for the best ewe, considering both quantity and quality. The amount of the first prizes is fifty thalers each, equal to thirty eight dollars in American gold. The correspondent of the *Tribune* writes that this entry of twelve American sheep was made public through the press of Germany several weeks before the Exhibition, and it was regarded as a great joke that America should for a moment think of competing with Germany in sheep. But the competition has been eminently successful, and the long faces of the other exhibitors indicated their mortification and disappointment. Open dissatisfaction was expressed that two of the first prizes for sheep should be awarded to America, and to settle the matter, Colonel Needham, Commissioner from Vermont, proposed a sweepstake of one hundred dollars for the heaviest fleece, taking into the account the weight of the sheep, the jury to be appointed by the Association, the sheep to be sheared. But the German and French Exhibitors declined the proposition, thus practically affirming the justness of the award.

The following is the list of prizes awarded to Americans so far as heard from to August 5th:

LIST OF AMERICAN PRIZES:

George Campbell, Vermont, for largest quantity of wool, fifty thalers—1st. prize.

George Campbell, Vermont, for largest staple, fifty thalers—1st. prize.

George Campbell, Vermont, for combination of quantity and quality, twenty-five thalers—2d. prize.

Cyrus B. McCormick, Illinois, for the introduction and perfection of practical mowing machines—Gold Medal.

Seymour, Morgan & Co., New York, for first-class reaping and mowing machine—Large Silver Medal.

Thornton & Avery, Pa., Horse Power—Silver Medal.

James A. Saxton, Ohio, for improved Harrow and Cultivator—Large Bronze Medal.

Whittemore, Belcher & Co., Mass., assortment of Agricultural Implements and Machinery—Large Bronze Medal.

L. P. Rose, Michigan, for elegantly finished implements—Large Bronze Medal.

E. C. Tainter, Massachusetts, for planing and tenoning Machine—Large Bronze Medal.

George Campbell, Vermont, for Willard's patent Root Cutter—Large Bronze Medal.

John Vanderbilt, New York, for Agricultural Implements and Machinery—Large Bronze Medal.

J. W. Free, Ind., Fanning Mill—Large Bronze Medal.

Hall & Spear, Penn., splendid Plow—Bronze Medal.

S. P. Hubbel, N. Y., Seed Sower—Large Bronze Medal.

—*American Agriculturist.*

Calcutta Agricultural Exhibition.—The Agricultural Exhibition to take place ere long at Calcutta in India, has been definitely appointed, it appears from later advices, for the month of January, 1864, from the 18th to the 23d inclusive. It is to be held under the direction of the Government, with the assistance and co-operation of the Agricultural and Horticultural Society of India. The object of the exhibition is to bring together for show, competition, and eventual sale, cattle and other live stock, agricultural implements and machinery, together with articles of Indian agricultural produce. The machinery will comprise cultivators, plows, harrows, threshing machines, saw mills, oil mills, pumps for irrigation, cotton cleaning machines, and other implements. No charge will be made for the admission of live stock and articles intended for exhibition. All produce and implements for show must arrive in Calcutta and be sent to the exhibition on or before the 31st of December, 1863, and live stock on or before the 14th of January, 1864. We believe that some American Agricultural Machinery has already found a market in India, and our manufacturers may find it to their interest if the interval allowed is of sufficient length, to be represented on this occasion.

☞ It is stated that Mr. Campbell of Vermont, sold his twelve prize sheep, exhibited at Hamburg, for the sum of $5,000.

PAIR OF SOUTHDOWN EWES.

Property of Saml. Thorne, Esq., Thorndale, Washington Hollow, Duchess County, New York.

SHEEP HUSBANDRY—No. 6.

Commerce and manufactures are the two great instruments of civilization and wealth throughout the world. It is these agencies that have given to England the supremacy which she has heretofore held among nations. The art of spinning and weaving was introduced into that country by the Romans more than a thousand years since, and the people taught to clothe themselves in the Roman fashion. Woolen fabrics were mostly spun and woven by females, whence the term "spinster" was derived. It is related of "Edward the Elder," King of England, in the ninth century, that he married the daughter of a shepherd, and being desirous that his children should have a princely education, "he *sette* his sons to *scole*, and his daughters he *sette* to *woll worke*, *takyne example* of Charles the Conqestour." In these early times the exportation of wool constituted the principal resource of the people of England. The Flemings were the great weavers of Northern Europe, and acquired wealth that rendered Flanders the most fruitful and populous country on the continent. In the sixteenth century the manufacture of wool begun greatly to increase in Great Britain, and in connection with the growing commerce of the country, at length extended the export of woolen goods to all parts of the world. The production of wool kept pace with its manufacture, and sheep husbandry having been for centuries the favored branch of agriculture, increased to such an extent as to make England the greatest wool-growing country in the universe, the annual clip at the present time being over 300 millions of pounds of well washed wool on an area of less extent than Ohio and Pennsylvania. For many years past, the production of corn, cattle, and hogs in the West has been so great, that at times prices have scarcely paid the growers a reasonable compensation, while wool being always in short supply has paid better than any other branch of agricultural industry. A bushel of corn weighs 56 pounds, and the average price at Chicago for the last ten years has been 37½ cents. The cost of transportation to the seaboard has been about 22 cents, which is 66 per cent on the value at Chicago. The average price of hogs at Chicago for ten years past has been $3 75 per hundred, and the cost of transportation to market 75c. a hundred, making 20 per cent, on the value at Chicago. The average price of beef at the same point has been $3 00 a hundred, and the cost of transportation to market 75c. a hundred, being an average of 25 per cent. on the value at Chicago. The average price of wool has been about 40 cents a pound, and the cost of transportation to market 1½c. a pound, MAKING AN AVERAGE OF ONLY FOUR PER CENT. ON THE VALUE AT CHICAGO. The estimate of consumption of wool for the coming year is 150 millions of pounds, while the clip it is

supposed will fall short of 75 millions. These estimates are made by parties having the best facilities for obtaining information and can be relied upon as being very nearly correct. Seventy-five millions of pounds of foreign wool, it will be seen, will be required to make up the deficiency, a proportion of which comes from Australia, a distance of 14,000 miles, in foreign sailing ships, our own having been driven from the ocean by the unholy policy of England in furnishing piratical vessels of war for the rebels to prey upon our commerce under the British and Confederate flags. Fine foreign wools consumed in our country, are mostly imported from Buenos Ayres, the Cape of Good Hope and Australia, produced to a large extent by British capital. Why should not the capitalists of the United States who are troubled to make safe investments of their money engage in sheep husbandry in the West—where lands are cheaper for the same quality and when the climate is better adapted to the production of wool than any other part of the globe? We are familiarly acquainted with an American in Buenos Ayres who has a flock of 75,000 sheep, and in Australia with an English firm owning 85,000. Before the breaking out of the rebellion a successful effort was made to establish sheep husbandry in Texas by Northern capitalists. We expressed the opinion at the time, and we are confirmed in it since, that the cheap prairie lands of the West, on account of a *far better market for mutton*, and a climate free from the chilly "northers" to which Texas is subject, would render the undertaking much more profitable in the West. Can there be any doubt of the success of an enterprise of this character if conducted with ordinary judgment? "Come and let us reason together" on the prospects in the future. The rebellion *will* be put down, for however we may differ as to the conduct of the war there is no considerable number in the loyal States that would listen for a moment to the breaking up of the Union. The West we know will never consent that the Mississippi, with its navigable tributaries of 12,000 miles, shall flow through a foreign territory. They have re-opened it for navigation, and they will keep it open at all hazards. Should the rebellion be speedily crushed, there cannot fail to be an immense emigration into the country. A new spirit of enterprise would be likely to spring up in all parts of our territory. The Pacific Railroad and other great works for the development of the country would be pushed on. The whole Southern country would be re-opened to trade and commerce. Capital would flow to us from all parts of the world for investment in our securities and works of improvement, for faith in the stability of our government would be ten-fold greater than ever before. We should then occupy the position of having passed through the fiery trial unscathed. We should have a standing army and an immense navy, we trust, for it is quite clear that we ought never to have been without them. The war tariff would remain a necessity until the public debt was paid, which would greatly increase manufactures of all kinds, *and of woolens and worsteds in particular*. Immense quantities of iron, and nearly four hundred thousand tons of sugar that are now being annually imported, would be produced at home. These considerations are evidently in favor of the presumption that all kinds of business would be brisk and that sheep husbandry would become one of the leading branches of agricultural industry. On the contrary, let us consider the effect of the continuation of the rebellion. The cotton supply steadily diminishing; the probability that a considerable portion of the crop will be burned; the system of labor in the cotton growing States greatly demoralized; an increase of the army and navy involving the necessity of increased supplies of military clothing; exchange ruling at higher rates and restricting importations; wages in all departments of industry increased, enabling the people to indulge in all their real or fancied wants; manufacturing establishments of all kinds in active operation; the possibility (and by many believed to be a strong probability) of serious complications with one or more of the great powers of Europe. These considerations all tend to strengthen the conviction that no branch of agriculture is more likely to prove profitable in the future than sheep husbandry.

In the discusssion of this subject, we have said but little in reference to the care of sheep, except to declare the principle that all domestic animals, and sheep in particular, should be well fed, well watered, well salted, and well sheltered—that they should have a frequent change of pasture, and as wide a range as possible, and that dry litter should be placed in the yards where they lie at night in stormy or cold weather, knowing that there was no necessity for it, and if there was, it is the peculiar province of agricultural societies to furnish the information. We have no interest in an increased production of wool save that which every good citizen has in the developement of the resources of the country, but the

writer has a particular attachment to the West, for there he has friends innumerable who have stood by him from his boyhood to the present time, and there are the graves of his kindred. For whatever of prosperity he enjoys, he is indebted to the West, and when he shall cease to remember the obligation, may his right hand forget its cunning, and his tongue cleave to the roof of his mouth. He sincerely believes that the present is the golden opportunity for the West to enter upon a career of unparalleled prosperity, and whatever he can do to aid in this consummation will be done.

"The right hand of friendship, how oft have I grasped,
And bright eyes have smiled and looked bland,
But happier far are the hours I have passed
In the West, in mine own native land."

U. S. Economist.

Inorganic Compounds.

Inorganic substances form a constituent part of the animal body. Their uses are various, depending altogether on the kind of animal that partakes of them. Without inorganic substances the most nutritious aliment would soon fail to sustain life.

Salt is not nutritious, yet neither man or animal can long exist without it; salt in consequence of its antiseptic properties aids in preventing the decomposition of the solids and fluids of the body, and to a certain extent it is decomposed, aids digestion, and next enters into composition of the bile.

Another inorganic substance known as lime, is necessary for the consolidation of bones, it unites with acidified phosphorous, and renders the bones hard and unyielding. A deficiency of lime and phosphorous causes softening and brittleness of the same; from which arises many diseases of the bones known as big-head, big-jaw, rickets, friability, etc. A laying hen requires a certain amount of lime, otherwise the fibrous covering of the egg will be soft an unconsolidated. The hen obtains carbonate of lime from chalk, mortar, shells, and various other substances which contain it, to which such creatures should have free access.

Iron, also, is necessary for the integrity of the organism, it is required in the production of the red corpuscles of the blood. It is diffused in small quantities through the tissues of plants and vegetable matter, and in the disease known as anemia, iron has to be supplied artificially.

It is necessary, also, that animals should procure a sufficiency of phosphate of lime; analysis has shown that it enters into the composition of milk, hence if a cow yield inferior milk, when their seems to exist no suppressed or real cause for it, it is probable that her food does not yield sufficient phosphate of lime; most of the phosphate of lime used in the animal economy, is obtained from corn, oats, and oat-straw.

Sulphur is also found, in small quantities, in the animal tissues. It is said, but I cannot vouch for the truth, that if dogs are supplied with a sufficiency of sulphur, they are never susceptible of spontaneous rabies. To this view, and for the prevention of dog distemper, English sportsmen always keep a piece of roll brimstone in the watering trough; by this means the article is introduced into the system in minute quantities, whereas, if it were constantly supplied in large doses, it would constitute an exciting cause of disease.

The facts are, men and animals require some considerable inorganic rubbish for the digestive organs to sort over and select from. A little dirt, charcoal, or common coal, are devoured by the ailing and craving animal with gusto. I have known horses with common heaves, devour large quantities of old mortar, with much benefit to themselves and their malady. Pigs in the region of the coal mines of Northumberland, eat large quantities of coal, and sometimes grow fat on it.

It is my belief that if phosphate of lime and charcoal were fed to hogs, they would not be the subjects of hog-cholera. In fact, they are the best remedies for this malady that are known of.

Wool Trade in England.—A statement of the movements of the Wool Trade in England, comprising the Imports into and Exports from that country for the first six months of the present year, as compared with the corresponding period in the years 1861 and 1862, is published in the Mark Lane *Express* for August 10th. It shows that a much larger quantity of wool has been brought into the United States for two years past, than probably many of our readers would suppose. We give the figures below:

Shipments of Wool from England to the United States for the first six months of the years 1861, 1862, *and* 1863.

	1861.	1862.	1863.
Colonial grown Wool.....	55,119 lbs.	1,431,250 lbs.	2,289,660 lbs.
Foreigh grown Wool.....	72,190	1,793,890	5,587,848
English grown Wool.....	39,721	813,941	571,668
Totals.....	167,030	4,039,081	8,449,196

The English market for wool is now said to be "decidedly healthy; but the great abundance of wool operates against any advance in the quotations."

CALIFORNIA

Wine, Wool, and Stock Journal.

"Festina Lente,"---Hasten Slowly.

SAN FRANCISCO, NOVEMBER, 1863.

To Advertisers.—The Wine, Wool and Stock Journal now has a liberal circulation through the State among wine-growers, wool and stock raisers, dairymen, and agriculturists generally. Nurserymen, stock-raisers, inventors of new machines, will find our columns the place to make known their business; and now is the time to advertise.

Notice.—We respectfully ask attention of our subscribers to the bills inclosed in their papers last month, and hope they will *remit us the amount.* The sum in the aggregate is large. We have waited six months for many, and ask a ready response.

Posters—Printing, Etc.—We are prepared to get up Illuminated Posters and Showbills, for Agricultural and other Societies, in a style of typography hitherto unattempted in this State; we will also execute to order, all kinds of work for *stock breeders*, race meetings, nurserymen, and others; having received a supply of beautiful cuts, specially adapted for the purpose—specimens of which may be seen at our office—address orders to the publisher of this paper.

OUR PRODUCTS--OUR JOURNAL.

There is no State in the Union to which more attention is being turned at the present time, or where such a lively interest seems to be felt and taken in the development of her agricultural products and resources, than California. No country, in such a space of time, has ever produced such a variety and surplus of products sufficient for her own use and exportation, and which can be maintained and extended to an almost unlimited extent.

Our Wine crops are beginning to become of immense value, not only for home consumption, but for exportation to the East and Europe, where their qualities are faster and better becoming known—already California Clarets are in lively competion with the foreign article, and the sale in this city is becoming very large. Hundreds of varieties of the grape are successfully cultivated in the prolific soil of our mountains, hillsides, and valleys, and the fruit has been brought to the most perfect maturity and delicacy of flavor.

Our climate seems to be admirably adapted for the cultivation of the vine, and in some locations, far more so than in some of the vine growing districts of Europe, and the time will come when wines will be made here, equaling, if not surpassing, those of France or Germany. It is not our purpose to go into any dissertation on the subject at this time, but shall reserve remarks for a more extended article.

There is nothing that has so much engaged the attention of the farmers of our State, of late, as the breeding of sheep and wool growing, and, from all accounts, it has proved productive and pecuniarily successful. Flocks, varying from a few hundred to ten or twenty thousand, are already roaming over the ranches in various portions of the State, and which are looked upon by the owner as valuable property, more productive than real estate, and as safe an investment. The increased attention paid to the growth of wool in California, is already being felt all over the whole world, for Nature has supplied us with unequalled advantages for its culture, especially in shelter and protection, through the wonderful mildness of our climate.

Tobacco—The success attending the culture of this notable plant in California, has produced the greatest interest over the State, the quality, when properly cured, being excellent. Immense quantities have been raised the past year, samples of which have been shown at our various County and State Fairs, and elicited general commendation. The culture the next season will be on a very large scale, and if the proper attention is paid to its *cultivation* and *curing*, it will exceed in value any of our other products and become a source of wealth and revenue to the State.

Hops—We are already showing, by a series of articles in our columns, the advantages derived from their culture, which thus far has proved successful.

Cotton—Experiments have been made and are still being made for this most important article of commerce, which it will be seen, by reference to our reports of the late fairs, has been attended with satisfactory results. Those interested can see the samples, in all their variety, at our office.

Hemp and Flax—Both of these articles have been cultivated, and successfully too, and must also be ranked, in time, among our leading exports.

Rice, Coffee, and Tea—last but not least in the calendar of our undeveloped resources, have proved themselves not unacquainted with our soil; and experiments are now being made in the cultivation of these staple articles for consumption and beverage, which we hope, in the future, to chronicle as eminently successful. We have the soil, the energy to do, the material of labor, among us—it only requires *time* to overcome whatever obstacles may at present

lie in the way of our advancement to permanent success and prosperity.

Our Journal is unlike any other, and has no competitor on the Pacific Coast. It has ever been the exponent of the cause of Agriculture, through the various branches, which its title indicates. Its circulation is rapidly increasing in the houses of our wealthy citizens, and among the farmers, dairymen, wool growers, wine growers, and others in every county in the State, and even to our wealthy neighbors over the hills and mountains to Washoe. The interest which we have slowly awakened by an adherence to the principles of Agriculture, as promised from the commencement, has taken root, and will, we hope, spring up into a bountiful harvest for us, in repayment for our toil. We shall go on, and introduce new features of interest as fast as possible, more attractive and interesting, which cannot fail to be worthy the perusal of every agriculturist, and even our merchants and reading men in every city and town in the State, and we hope that our wool growers, wine growers, and farmers, all, will aid in extending the circulation of our Journal, and also favor us with occasional correspondence from any portion of the State—and by these means help us to pursue the even tenor of our way, through the clouds, and toils of the first year, until we can enjoy a few rays of grateful sunshine.

Lambs Dying from Wool in the Stomach.—The Irish *Farmer's Gazette* says: Lambs very frequently swallow particles of wool, which in playfulness they bite from their dams; to prevent which the dams, when this occurs, should be smeared with a mixture of aloes and water, or asafœtida and water. When they swallow the wool it gets mixed with the cud in the stomach, it forms hard balls that are indigestible; but the administration of a teaspoonful of soda mixed in water twice or thrice a day dissolves and digests the cud, if not gone too far. Calves frequently die of the same disease, and the only remedy yet found is soda.

Hemlock for Sheep.—A correspondent in Wyoming county, N. Y., writes the American Stock *Journal*, that he keeps his sheep healthy in winter by placing hemlock brush in the sheep-yard. The sheep eat the brush readily, as well as the bark from the limbs. In the summer, if his sheep have the scours, he takes them off the grass for a few days, and confines them on hemlock bark or the boughs.

Veterinary Department.

FOUNDER (LAMINITIS) IN HORSES.

By R. Jennings, Veterinary Surgeon, Professor of Pathology and Surgery in the Veterinary College in Philabelphia.

Laminitis, or founder, as it is commonly called, is an inflammatory condition of the soft, delicate, and sensitive structures of the feet.

Inflamation, from *inflamato*, to burn, is one of the most common forms of disease to which the attention of the veterinary surgeon is directed. Inflammation has been thus described by medical writers: "An unnatural or perverted action of, and in, the the capillary blood-vessels of a part, attended with redness, throbbing, swelling, pain, heat, and disorder of function, with change in both its fluid and solid constituents, as well as with more or less general disturbance of the system."

Imagine, if you please, the soft structures of the feet involved in inflammation; regard the manner in which they are situated—between two hard, unyielding substances, the os pedis or coffin bone within, and a hard, brittle hoof without.

Inflammation causes swelling, by filling up the capillary vessels to their utmost capacity; swelling causes pain, by putting the nerves of the part involved on the stretch. In laminitis we have an exception to this rule; the inflamation causes a fullness in the capillaries; this fuilness causes pressure upon the nerves, and other tissues of the foot which meeting with such powerful resistance as is offered by the hoof on the one side, and the coffin-bone on the other, cannot swell as they would do, if differently situated—therefore the swelling of the capillaries produces the same effect as would be caused by placing an inflamed part in a vice and squeezing it, pain of the most excruciating character would be the result.

E. Gabriel, M.R.C., V.S., Veterinarian, Vol. xvii. says: "Acute founder, a very significant term, though by no means a well-defined one—Fever in the Feet, which is a much better one, and will give the general reader at once a notion of the disease—and Laminitis, which is by far the best, as indicating that the fever or inflamation, is not only in the foot, but also that particular part of the foot called the sensible laminæ." This, then, is the disease—and one of so severe, and usually fatal a nature, as far as the organization of parts affected goes—that the antici-

pations of a perfect cure, such as we should as a matter of course hold out in an equally severe inflammatory attack on any other organ not terminating fatally, appears never to have been indulged in; but the account of the symptoms is followed up by every author, with the best mode of palliating, or inadequately compensating for, imperfect resolution, effusion, or sloughing, in which it would seem this destructive disease so often terminates; reducing the pride of the stable, with his splendid figure, high courage, fast pace, and grand action, to an almost useless cripple, with an awkward gait, imperfect action, lazy pace—reduced in value from hundreds to tens, or perchance to units; ejected from the splendid establishment, where every care, comfort, nay even luxury, surround him, to linger on the remainder of his existence in the last stages, so truly and graphically described as closing the career of the high-mettled racer.

Somewhere about two hundred years ago, indeed, it would appear that the case was different, and the treatment then adopted was attended with such signal success, that in from four days to a fortnight the cure was accomplished, and the animal as sound as ever; for Gervase Markham, in 1660 tells us that "by thinning the sole, bleeding in the toe, and then pouring in some boiling hot stopping, and repeating the same three times in one fortnight, that without any further trouble you shall be sure to have the horse as sound as ever it was;" and then De Grey cuts the matter still shorter, for he says that, "if your horse has not been foundered above four days, then with this receipt you may easily set him upright, and make him sound again in four days more."

The means, however, which appears to have been so successful in those days, unfortunately lost their efficacy in succeeding generations, and with that loss fell also the sanguine predictions of the users thereof; for fifty years after, Sir William Hope says: "now, where the foundering hath fallen down into the feet, horses are a long time recovering, so that a year's time will produce but little amendment, therefore the best way is to sell them for the plow." Fifty years later, Jeremiah Bridges, Farrier and Anatomist, whose very name and titles must carry conviction, tells us, "that the progress of a founder is so quick, and its consequences so pernicious, that we cannot be too speedy in our applications," and that, when confirmed, "time, rest and turning out in soft meadow ground, may be of service." Towards the close of the eighteenth century, Snape, Farrier to His Majesty, informs us that it rarely happens that this dreadful malady is surmounted before the consequences of it are on the point of proving exceedingly pernicious, if not totally destructive to the horse, who languishes beneath its violence." There is no disease of the equine species known to man so well, and of which so much has been written, upon a sandy foundation, as that of laminitis, except, perhaps, a single exception, that of spavin and ring-bone. Every horseman pretends to know what laminitis is, and has his favorite remedy for the disease; in consequence of this assumed knowledge, many awkward blunders have been made, and many valuable animals have been sent to an untimely grave. In 1854, when the typhoid influenza (which raged so fearfully for two years) made its appearance in the city of Philadelphia, (See American Veterinary Journal, 1855, p. 245) the disease was treated by the knowing ones as founder, they deeming it unnecessary to call in the veterinary surgeon to treat a disease so common, and well understood. And it was not until the favorite remedies for founder had been exhausted and almost every animal so treated had lost their lives, that the veterinary surgeon was called. The first stable to which their attention was directed was that of Joseph Glenat, well known as an omnibus proprietor; he had lost nine horses within two weeks, from, as the Superintendant said, founder, which disease they had always been successful in treating before; from that time, the loss in that stable, where upwards of one hundred animals had taken the disease, was reduced to less than four per cent. This, as far as the symptoms of founder are concerned, may be regarded as metastic laminitis; in all such cases, the uneducated attendant will trip over the same stumbling block, by treating the case for founder.

What are the causes of this dreadful disease? Are they, as have been attributed by veterinary authors, due to watering when warm, driving long distances on hard roads, confinement in a standing position, as on shipboard, metastasis, over-feeding, eating large quantities of wheat or rye, standing in draughts, etc., etc.? I regard these as not the primary causes, but as the immediate or exciting cause; the primary cause being in a hard, brittle, and generally contracted condition of the hoof. This first great cause, has been very clearly demonstrated to my mind, during my anatomical investigations of the last seventeen years; as plain and forcible as this fact appears to be, it has entirely escaped the

notice of veterinary writers. In my next I will present my views on the subject, and attempt a demonstration of the fact, to such of your readers as may feel an interest in the importance of the subject. —*Am. Stock Journal.*

[CONTINUED.]

Swelled Legs in Horses.

This disease takes on several forms. Sometimes it is simply a slight enlargement of the larger muscles of the legs, consequent upon standing on a hard floor, with lack of exercise. This often occurs when a horse is first taken in from pasture and confined in the stable. The obvious remedy is a little hard rubbing of the affected parts, feeding with grass or other light food, and plenty of daily exercise.

A worse form of this is, when a horse, somewhat feeble and diseased in other parts, suddenly develops swollen limbs. This is apparently the shifting of disease from the other organs. It is accompanied with a lack of healthy circulation, with fever, soreness, and lameness. Sometimes abscesses are formed, and the heels are affected with "scratches." The treatment required is a mild physic and bleeding, if the horse is not much reduced. Warm bathings should be used, and bandages. If this trouble arises from weakness and low living, the horse should have better food, and all means should be tried to improve the tone and vigor of his system.

Poll Evil.—Having a horse suffering with this disease for near two years, and after trying many remedies without success—his head in such a state that I think it would discharge a pint at a time, and I finally made a perfect cure of it in this way: I got half a gallon of alcohol, and put in it as much corrosive sublimate as it would dissolve. Then take some blue vitriol, and put a piece about the size of a pea in the orifice, twice a day, for two or three days. If the case is a bad one, then wash with the alcohol mixture; a very little will answer, and if you find the hair coming off, on blistering, apply the wash less frequently. If you attend to it as I direct, you will make a perfect cure.

The whole expense with me was forty-eight cents. I applied the wash twice a day for, say six weeks, and the cure was perfect. This was two years ago, and the horse is still well. — *Country Gentleman.*

Oregon fruit is brought down on the steamers to San Francisco for $8 a ton.

CULTIVATION OF THE HOP—No. 3.

AMERICAN HOPS.

Within the last twenty years a very great increase has taken place in the cultivation of hops in the United States. Between 1840 and 1850 it had grown from over one and a quarter million pounds to nearly three and a half million pounds, and in 1860 the quantity raised was more than eleven million pounds. Almost the whole of that increase, however, was confined to the State of New York, which, from less than half a million pounds in 1840, now raises about ten million of pounds! To show the relative increase during the period we speak of, we have compiled the following statistical table:

HOPS RAISED IN STATES AND TERRITORIES.

	1840	1850	1860
Alabama	825	276	1,069
Arkansas	.....	157	164
California	.....	.....	10
Columbia, Dist. of	28	15	15
Connecticut	4,573	554	959
Delaware	746	348	414
Georgia	773	261	199
Illinois	17,742	3,551	7,129
Indiana	38,591	92,796	75,053
Iowa	83	8,242	1,789
Kansas	.....	.....	149
Kentucky	742	4,309	5,899
Louisianna	115	125	8
Maine	36,940	40,120	102,987
Maryland	2,357	1,870	2,943
Massachusetts	254,795	121,595	111,301
Michigan	11,381	10,663	61,704
Minnesota	.....	.....	149
Mississippi	154	473	221
Missouri	789	4,130	2,265
New Hampshire	243,425	257,174	130,428
New Jersey	4,531	2,133	3,722
New York	447,250	2,536,299	9,665,542
North Carolina	1,063	9,246	1,767
Ohio	12,195	63,731	22,731
Oregon	.....	.....	187
Pennsylvania	49,481	22,088	41,576
Rhode Island	113	227	50
South Carolina	93	26	122
Tennessee	850	1,032	2,329
Vermont	48,137	288,023	631,641
Virginia	10,597	11,506	10,015
Wisconsin	133	15,930	135,587
Territories	.....	.....	179
	1,238,502	3,496,950	11,010,012

With the quantity thus raised in the Eastern States, let our readers compare the quantity exported from 1854 to 1861, inclusive, and their estimated value. It is extracted from the Patent Office Report for 1861.

EXPORT OF HOPS FROM THE UNITED STATES TO FOREIGN PORTS FOR THE FISCAL YEAR ENDING JUNE, 30.

YEARS.	POUNDS.	VALUE.
1854	260,026	$63,763
1855	4,021,816	1,310,720
1856	1,048,515	146,966
1857	924,538	84,852
1858	458,889	41,704
1859	587,953	53,016
1860	273,257	32,866
1861	(est'd) 8,000,000	2,500,000

From this table it will be seen that there was considerable variation in the prices, and this variation is one of the most striking peculiarities of the hop trade throughout the world.

An opinion seems to be prevalent, even among well educated people, that the bitter principle of the hop is contained in the leaves. This, however, is not the case. Its essential properties reside in the fine yellow dust at the base of the leaves. . To this the name of *lupuline* has been given, but this name is more strictly applicable to the bitter principle which it contains. It was noticed by Sir J. E. Smith, of England, and by M. Planché, of France; but its chemical properties were first investigated by Dr. A. W. Ives, of New York. In 120 grains of it he found 5 of tannin, 10 of extractive, 11 of bitter principle, 12 of wax, 36 of resin, and 46 of liguin. He also found by rubbing the hops in a coarse canvas bag, and shaking the powder through, that the resinous matter became agglutinated by moderate heat and burned readily with a white flame. By distilling this resinous powder, both Payen and Chevallier obtained a volatile oil. It was of a yellowish color, possessed an acrid taste, and had an odor of hops.

The powder constitutes from one-eighth to one-sixth of the whole weight of the flower, and according to an English authority, the volatile essential oil forms two per cent. of the total weight. The separation of this resinous powder, and its use in the form of an extract instead of its present shape, has been recommended by Dr. Ives, on the ground of economy, in saving the cost of transportation; but as yet nothing has been done to carry the suggestion into practice—even if it could be done successfully. They have tried it in Europe, but failed.

From the conversations which we have had with some of our principal brewers, it would appear that there is some defect in the American method of raising hops—at all events they are not of such good quality as those of European countries. For instance, we were told that the Eastern brewers require to take about double the proportion of American to Bavarian hops to make the same quantity of beer. In other words, Bavarian hops possess about double the strength of American hops. To what causes this is owing, it would be difficult to say; but it is worth while to note the difference in the process of preparing them for the market. In Kent the vines are cut about three feet from the ground, and the reason assigned is that if they were cut lower "it would weaken the root by causing it to bleed." The hops are gathered by hand, dried in a kiln, and pressed compactly in a hydraulic press. But in Bavaria the treatment is very different. When the hops are ripe, the vines are cut close to the ground, dried in the sun, and packed loosely into bags. This method, according to one authority, preserves the aroma much better than the English method. It is not unlikely that it does so; but if the American growers wish to cope with those of Europe, they must make experiments until they improve upon the old methods and settle the question for themselves.

In the hop yards of New York State, one peculiarity has been introduced of late years which deserves notice. A substitute for poles has been introduced by Mr. Thomas D. Aylesworth, and is being generally adopted for the sake of its greater convenience and economy. Rows of stout posts are set through the hop yards, six or eight rods apart, and along the tops of each row a strong wire is stretched. From a point immediately over each hill a hempen cord is carried to a short stake driven into the ground in the middle of the hill, and fastened to the top of it. Up this cord the vines climb as readily as they do up the posts, and when the hops are ripe the wires are unfastened and as many cords unhooked as may be convenient to the pickers. A clamp secures the wire to each post, so that only the vines between the two posts may be loosened at once.

[*Concluded in our next.*]

Mr. Thos. Sebring, in Green Valley, has fourteen acres planted in Tobacco, six acres of which are for Chewing Tobacco. Virginia Broadcap, esteemed for chewing; Virginia Brown, Large Havana—excellent smoking varieties. Five acres are planted with Connecticut Seed Leaf, considered the best variety for wrappers. The Tobacco field is under the charge of Mr. Lee, an old grower in Ohio. Mr. Sebring has also a Vineyard of eight thousand vines—Native and Foreign varieties—in splendid condition; and an orchard of six thousand bearing trees.

Hawaiian Tobacco.—Samples of Hawaiian tobacco, prepared and manufactured by Mr. Duduoit in Honolulu, have been exhibited in town this week. They are of very fine quality, of a pleasant flavor when smoked, very much resembling Turkish tobacco. That a superior kind of tobacco can be raised on these islands, that it can be properly cured and skillfully manufactured, we believe that time and experience have fully demonstrated. That it can be made a profitable occupation, we hope the enterprise of Mr. Duduoit will prove as an equally undoubted proposition.—*Polynesian.*

TENTH ANNUAL FAIR OF THE STATE AGRICULTURAL SOCIETY.

The Tenth Annual Fair of the State Agricultural Society of California was duly opened at the 26th of September last, under favorable auspices, and until the close of the same may be said to have been successful, as far as could have been desired, under all circumstances. The city was full of people, who had flocked from all parts of the State to be present at the general yearly holiday, to see and to enjoy the tempting sights at the Pavilion, and to mingle in the excitement and pleasure of the Race Course and parade of fine animals at the Stock Grounds.

Everything was in good working order during the Fair. The new officers of the Society were unremitting in their labors, but upon the Secretary of the Society, I. N. Hoag, Esq., devolved (as is usually the case) the most arduous of all duties, which were carefully and correctly carried through, and gave general satisfaction.

The judicious selection of Wilson Flint, Esq., General Superintendent, also enhanced the general good feeling, and to such officers the Society may well owe much of the success of the late Fair.

The Mineral Department was well represented by specimens of gold and silver quartz from the famous Gould & Curry, Ophir, and other Washoe mines, from Reese River ledges, from the Humboldt mines, and Copper ore from Copperopolis, the Consumnes, Newton, and various other mines. The rich array presented from our State and Nevada Territory, formed one of the most pleasing features of the hall.

The whole Fair wound up with a grand ball and promenade, the only objection was the lack of the usual drapery from the roof of the Pavilion. Everything passed off pleasantly and amicably, and the merry throng kept up the festivity until the night had worn away.

Among the thousand attractive and useful articles in the hall and basement of the Pavilion, a few are deserving of favorable mention, as coming directly under the agricultural heads of our Journal, as well as showing the growth and increase in our products and staple articles.

John Denn, of Sacramento, exhibited a wine press of fine workmanship and great power. A weight of two pounds, applied to the end of a short lever, easily pressed down one ton, showing the great capacity of the press. A patent has been applied for this press, which is destined to come into general use.

Charles Schaefer exhibited the largest wine cask or vat ever made or shown in this section, capable of containing one thousand gallons. It was of excellent workmanship, and attracted great attention, for its immense size, from the admiring crowd.

The greatest curiosity on exhibition in the building, more especially to wool growers, was Jenkins' Power Sheep Shearer. This machine, the agent (Mr. F. B. Lamb) says, is capable of shearing a thousand sheep a day, and cleaner and better than in the usual way. It is a *labor saving machine*, and the only one ever introduced for shearing sheep by motive power. The crank is turned by hand, and the shears also guided by hand, their blades working rapid and even, and doing their work thoroughly and satisfactorily, as was proved by experiments upon a sheep's pelt, in the presence of hundreds. The advantages claimed are these: You can shear sheep in less than one quarter the time than by the old method; the danger of cutting the sheep is entirely obviated by the use of the guides upon which the shears run; it saves enough wool to pay for shearing; it is so constructed that one boy can run it with ease, and its cheapness, durability, and simplicity will commend itself to the wool growing community. These machines will be made and sent out from the East in season for the spring shearing, when we shall have more to say on the subject.

J. B. Hoyt, of Solano County, had on exhibition some superior fleeces of Spanish merino wool which took first premium.

The Mission Woolen Mills made a splendid display of fabrics in various colors, flannels, tweed goods, blankets, etc., surpassing anything in that line ever exhibited. See description in another column.

Baker & Hamilton, of Sacramento, made a fine display of agricultural implements and machines, among which was a large reaping machine and thresher from their extensive establishment on J Street.

Mammoth squashes, in variety, were exhibited by George Cone, Thos. Milgate, C. G. Hidden, and others. The first mentioned exhibited a mammoth squash, weighing 200 lbs., which can be seen at our office.

Stockton & Cover, of the Granite Mills, Folsom, had some very creditable looking samples of flour and meal, neatly arranged.

Cotton plants, in full bloom, from H. Clark, of Sacramento; also some boxes of cotton bolls from A. R. Jackson, of Sacramento, the finest collection on exhibition, of excellent quality and soft and silk-like, showing that the article can be raised in this State. We shall allude to this crop in another article. Mr. Jackson has planted some twenty acres of cotton, which is doing well.

J. W. Jacobson, and John Hart, of Butte County, displayed superior specimens of resin and turpentine of California production; this branch of business is assuming considerable importance in this State, and is looked upon as already superior to the imported article.

Specimens of wire work, in great variety and curious workmanship, in cords, ropes, seives, and other designs were exhibited by A. S. Hallidie, of San Francisco.

The San Francisco Glass Company made a most creditable display of various samples of glass ware, manufactured at their factory at the Potrero Nuevo,—another evidence of our steady increase in the domestic manufactures.

The largest and best exhibit of fruit was made by J. R. Nickerson, of Lincoln, who had over seventy-five varieties of pears, nearly two hundred varieties of apples, also peaches, plums, quinces, three varieties of figs, almonds, English walnuts, and fifty-four varieties of grapes; also three boxes of raisins, samples of dried figs, nectarines, prunes, etc. The collection occupied two long tables in the main hall.

F. Strentzel, of Contra Costa County, exhibited fine specimens of California raisins of good quality, made from the following grapes—Muscat of Alexandria, Rose of Peru, Chasselas and Black St. Peters.

By far the finest looking specimens of raisins in the hall

were from B. N. Bugbey, of Folsom, who exhibited two boxes made from the Fihersagos grape. The specimens were well dried and cured. Mr. B. informed us he had made this season 2,000 pounds. Samples can be seen at our office.

Mrs. E. B. and Miss Mary N. Crocker, of Sacramento, also exhibited fine specimens of raisins and dried fruits.

Handsome displays of fruit were made by C. A. Reed, of Yolo, A. Runyon, of Sacramento, G. A. Trimble, of Coloma, Sanderson & Co., of San José, E. Harkness, of Georgetown, and others.

A. Bergman, of Sacramento, exhibited specimens of wine vinegar, and some bottles of pickles—fresh and tempting looking.

W. S. Johnson, of Sacramento,—cotton plants. Thomas Edwardson, of Sacramento, Joseph Kiles, of San Joaquin, and J. Morrill, of Sacramento,—tobacco plants. Cook & Simonds, of Marysville,—fine specimens of cured tobacco of various kinds, also chewing and smoking tobacco. It is very evident that the time is coming when California will be able to raise these two great staples—cotton and tobacco.

Silk cocoons, exhibited by the pioneer, L. Prevost, of San José, who has, by a series of experiments for years, developed the fact that silk can be raised in California, and become an important branch of industry. This department, like the display at Stockton and San José, was one of the principal features in the hall, and attracted great attention and curiosity.

Award of Premiums.

THOROUGHBREDS.

Stallions, of four years and upwards—First premium, Owen Dale, entered by John Hall, Alameda county; second premium, Ashland, entered by Nathan Coombs, Napa county.

Three-year old stallions—First premium, Montezuma, entered by Nathan Coombs, Napa; second premium, California, entered by John Hall, Alameda.

Yearling stallions—First premium, Milton S. Latham, entered by J. C. Davis, Yolo.

Sucking colts (or under one year)—First premium, Knight St. Patrick, entered by J. B. Redmond, Marin county.

Best mare and colt, four years old and upwards—First premium, Fairy Queen, entered by J. B. Redmond, Marin county: second premium, Rose Clifton, entered by J. C. Davis, Yolo.

Three-year old mares—First premium, Esperanza, entered by John Hall, Alameda; second premium, Fanny Bryer, entered by Nathan Coombs, Napa.

Your committee also recommend a special premium to be awarded to Joseph, entered by Mathews, of San Jósè, and Cosmo, entered by E. Chamberlin, as thoroughbred horses.

SHEEP.

Spanish Merino bucks—Best two-year old and over—First premium to J. D. Patterson; second premium to Bachelder & Cotter.

Best one-year old—First premium to McConnell & Curtis; second premium to McConnell & Curtis.

Best three buck lambs—First premium to McConnell & Curtis.

Best buck lamb—First premium to Bachelder & Cotter.

Ewes—Best five ewes, two years old and over—First premium to J. B. Hoyt; second premium to McConnell & Curtis.

Best five ewes one-year old—First premium to J. B. Hoyt.

Best five ewe lambs—First premium to J. B. Hoyt.

French Merino bucks—Best two years old and over—First premium to J. D. Patterson; second premium to J. D. Patterson.

Southdown bucks—Best two-years old and over—First premium to J. D. Patterson.

Leicestershire—Best five ewes two years old and over—First premium to Jerome Davis.

GRADED CROSSBREEDS.

Stallions.

Best four-year old and over—First premium to Nathan Coombs, for Davy Crocket; second premium to B. Cahoon, for Garibaldi.

Best three-year old—First premium to William Ledgerwood, for Patrick Cheatham; second premium J. B. Harbin, for for Tiger Whip.

Best two-years old—First premium to Mike Bryte, for Nick.

Best one-year old—First premium to V. Barnes, for Sea Breeze; second premium to Mike Bryte, for yearling—no name.

Mares.

Best four-years old and over—First premium to J. A. Price, for Lizzie Dale; second premium to Mike Bryte, for Annie.

Best three-year old—First premium to D. H. Trinder, for Ann Richards.

Best two-years old—First premium to D. H. Trinder, for Fanny Cheatham; second premium to B. Cahoon, for Fanny Maria Kimball.

HORSES OF ALL WORK.

Stallions.

Best four-years old and over—First premium to J. G. McCracken, for David Hill; second premium to D. B. Sutton, for Robert Dale Owen.

Best three-year old—First premium to M. Sprague, for Abe Lincoln; second premium to C. W. Fairchild, for Black Hawk.

Best two-year old—First premium to A. F. Smith, for Prince Albert.

Best stallion one-year old—First premium to Benjamin Tibbets, for stallion Eclipse.

Mares.

Best four-year old and over—First premium to C. F. Reed, for Amanda Wallace; second premium to James Bauquer, for Dolly.

Best one-year old—First premium to C. F. Reed, for Sallie Miller.

DRAFT HORSES, STALLIONS, AND MARES.

Best stallion four-years old and over—First premium to S. Daniels, for California Chief; second premium to R. S. Covey, for Young Gilbert.

Best three-year old—First premium to J. Southerlan, for Bluther; second premium to Daniel Dodd, for Young Wallace.

Best two-year old—First premium to H. Wilson, for Young America.

Best four-year old and over—First premium to W. Sedgerwood, for Puss Goldfinder; second premium to C. W. Reed, for Empress.

ROADSTERS.

Best stallion four-years old and over—First premium to E. M. Skaggs, for Rattler, Jr.; second premium to C. F. Reed, for Black Eagle.

Best three-year old—First premium to J. D. Osborn, for Peacock; second premium to William M. Allen, for Young Chrysopolis.

Best two-year old—First premium to Ed. St. Louis, for Red Bird; second premium to J. C. Davis, for Jimmy Clifton.

Best one-year old—First premium to N. Coombs, for Tarantula.

Best mare four-years old and over—First premium to Ed. St. Louis, for Fanny and colt; second premium to J. C. Davis, for Lady Wolfscale.

Best three-year old—First premium to James Hayworth, for Lady Dillon; second premium to J. C. Davis, for Lady Clifton.

Best two-year old—First premium to J. C. Davis for Lady Wolfscale; second premium to J. C. Davis, for Chuchaholo.

Best one-year old—First premium to —— Laubiser, for Katy Hawkins; second premium to J. C. Davis, for Minehaha.

CARRIAGE AND SADDLE HORSES.

Best pair matched animals (trotters), in harness—First premium to Thomas Maguire, for Abby Woods and Lady Utley; second premium to Capt. J. Whitney, for gray team.

Best mare or gelding in single harness—First premium to Thomas Maguire, for Abby Woods; second premium to B. E. Harris, for Jack Clifford.

Best saddle horse—First premium to J. M. Hubbard, for Dusty Bill; second premium, to B. E. Harris, for Jake.

SWEEPSTAKES.

Best stallion, and not less than five mares—First premium to C. F. Reed, for Black Eagle and family.

Best mare—First premium to C. F. Reed, for Empress.

Best stallion—First premium to D. B. Sutton, for Robert Dale Owen.

GRADED CROSSBREEDS.

Bulls.

First premium to J. C. Davis, for Joe; second premium to J. C. Davis for Red Jacket.

Best one-year old—First premium to J. C. Davis for white bull; second premium to J. C. Davis for roan bull.

Cows.

Best four-year old and over—First premium to Milton Dale for cow No. 30, Virona; second premium to J. C. Davis for Lilly.

Best three-year old—First premium to J. C. Davis for Snow Ball; second premium J. C. Davis for Mary.

Best two-year old and under three—First premium to Milton Dale for Rosey; second premium to J. C. Davis for Julia.

Best one-year old—First premium to Milton Dale, for Dixie.

Best calf less than one-year old—First premium to J. C. Davis for red calf; second premium to Milton Dale for Lorland.

SHORT HORNS.

Bulls.

Best three-year old—First premium to J. D. Patterson for Duke of Airdrie; second premium to Clark & Co. for George.

Best calf under one-year—First premium to Milton Dale for no name.

Cows.

Best four-year old and over—First premium to Milton Dale, for Mary Jane; second premium to J. C. Davis, for Bracelet.

Best two-year old—First premium to J. C. Davis, for Alice.

Best one-year old—First premium to J. C. Davis, for Annie Stevenson; second premium to J. C. Davis, for Clara.

DEVONS.

Bulls.

Best three-year old—First premium to S. Daniels, for Pacific.

Best one-year old—First premium to S. Daniels, for Oakland; second premium to S. Daniels, for McClellen.

Cows.

Best four-year old and over—First premium to S. Daniels, for Lassie; second premium to S. Daniels, for Fashion.

Best three-year old—First premium to S. Daniels, for May Queen; second premium to S. Daniels, for Beauty.

Best two-year old—First premium to S. Daniels, for Maud.

Best one-year old—First premium to S. Daniels, for Lassie; second premium to S. Daniels, for Fashion.

ALDERNEY.

Bulls.

Best three-year old—First premium to J. D. Patterson, for Albert.

Best calf less than one-year old—First premium to J. D. Patterson.

Cows.

Best cow, three-year old—First premium to J. D. Patterson, for Diana.

AYRESHIRES.

Best bull, four-years old and over—First premium to S. Daniels, for Walter.

Best cow, three-year old—First premium to S. Daniels, for Nena.

SWEEPSTAKES—DEVONS.

Best herd, one bull and five cows—First premium to S. Daniels.

Best herd of not less than six animals, dropped in California—First premium to S. Daniels.

Bull—First premium to Thomas Bedford, for Shasta.

Cow—First premium to Milton Dale, for Mary Jane.

POULTRY.

Best lot black Spanish—First premium to R. Thompson; second premium to C. S. Lowell.

Best Japanese—First premium to H. S. Beals.

Best lot Sumatra—First premium to M. E. Hoag, No. 81.

SWINE.

Best boar, under one-year old—First premium to T. Edwards.

Best sow, under one-year old—First premium to T. Edwards.

Sweepstakes open to all breeds, crosses, and ages.

Best sow—First premium to Dr. J. S. Curtis.

At the Pavilion.

AGRICULTURAL IMPLEMENTS.

Best header—First premium to Baker & Hamilton.

Best windmill—First premium to W. M. Jackson; second premium to J. Dickerson.

Best gang plow—First premium to Cronkite & Beebe; second premium to W. B. Ready & Bro.

Harrow—First premium to George Kelton.

Best plow—First premium to Cronkite & Beebe.

Best cultivator—First premium to Cronkite and Beebe.

Hay press—First premium to S. Stevens.

CARRIAGES AND WAGONS.

Family carriage—First premium to H. M. Bernard.

Rockaway, standing top—First premium to H. M. Bernard.

Top buggy—First premium to H. M. Bernard.

Freight wagon, to carry 6,000 pounds or over—First premium to H. M. Bernard.

Best and largest exhibit in this department, number of samples, style and finish considered—First premium to H. M. Bernard.

GENERAL FARM PRODUCTS.

Best and largest exhibit, including grains, seeds, vegetables, fruits, flowers, grasses, butter, cheese, pork, hams, and bacon—First premium to J. R. Nickerson.

GRAPES.

The best one variety—First premium to Samuel Rich.

For the greatest number of varieties and specimens of foreign grapes, six bunches each—First premium to J. R. Nickerson.

For 20 varieties best grown and correctly named, 3 specimens each—First premium to A. Gaffanesh.

Best 6 varieties—First premium to A. Gaffanesh.

For 12 varieties, correctly named, 6 specimens—First premium to J. R. Nickerson.

Best Native Grapes—First premium to Mark Hopkins; second premium to J. R. Nickerson.

ORCHARDS.

Best over 20 acres and under fifty—First premium to Dr. L. H. Bascom.

Best over 1 and under 20—First premium to Jared Runyon; second premium to Dr. T. Adams.

Best fruit garden under 1 acre—First premium to O. C. Wheeler.

VINEYARDS.

Best vineyard over 10,000 vines—First premium to A. Haraszthy; second premium to M. D. Culley.

Best vineyard under 10,000 and over 5,000—First premium to W. C. Hopping.

Best vineyard, foreign vines, 5,000 or over—First premium to Martin Allhoff; second premium to L. E. Miller.

Best Fruit Nursery—First premium to C. W. Reed.

Best ornamental nursery—First premium to Wm. O. Donnell.

Best timber nursery—First premium to Sanders & Brother.

Best hedge fence—First premium to Dr. L. H. Bascom.

FIELD CROPS.

Best potatoes over 1 acre—First premium to Isaac Bird.

Best tobacco, 5 acres or over—First premium to Isaac Bird; second premium to James Kile.

Best tobacco, 1 acre—First premium to H. M. Hoyt.

Best cotton, 5 acres or over—First premium to Jackson & Johnson.

Best Flour Mill—First premium to Coover & Stockton.

MISCELLANEOUS.

Furniture—Best exhibit, first premium to Goodwin & Co.

Piano Forte—First premium to Frederick Zech.

Wax Flowers—First premium to Mrs. J. W. Winans.

Printing—First premium to J. Q. A. Warren, *Wine, Wool, and Stock Journal.*

Brooms—First premium to R. Ireland.

Best churn—First premium to E. Moulthorp.

Best beehive—First premium to J. S. Harbison.

Rope—First premium to H. Tubbs.

Best sample of wool, not less than five pounds — First premium to J. B. Hoyt.

Best soap—First premium to Eureka Soap Co.

Cigars—First premium to P. Franklin.

Bacon—First premium to J. R. Nickerson.

Outside of San Francisco, the most notable articles which received premiums were raisins, made by B. N. Bugbey, near Folsom, who states that he has made 2,000 pounds this season.

Dried fruit, by J. Nickerson, near Lincoln, who exhibited many handsome specimens of over three tons made.

Sculpture, to A. Aitken of Sacramento, the marble being from Indian Diggings, El Dorado county.

Silk cocoons, to L. Prevost of San Jose.

Tobacco, for over 5 acres to Isaac Bird, and for 1 acre to H. M. Hoyt.

Cotton, for over 5 acres to Jackson & Johnson, near Sacramento City.

Hair-work, (silver cup,) to Miss L. C. Baldwin of Marysville.

Pastel paintings, (silver goblet,) to Mrs. W. E. Brown of Sacramento.

Hops by C. G. Hidden of Sacramento, they being of excellent quality. Of the abundant bearing of the hop vine in California, some idea may be formed from the fact that from one vine, planted in April, 1862, Mr. Hidden this year gathered 35 pounds of green hops, which, when full cured, weighed 11 pounds.

WINES.

Best white still wine four years old and upwards—First and second premiums to Kohler & Frohling.

White still wine three years old—First premium to Martin Allhoff; second premium to J. T. Godfrey.

White still wine two years old—First premium to Dr. J. Strentzel; second premium to J. T. Godfrey.

White still wine one year old — First premium to Dr. J. Strentzel; second premium to C. F. Scholl.

White sparkling wines—First premium to A. Haraszthy.

Best red wine four years old and upwards — First and second premiums to Kohler & Frohling.

Best red wine three years old—First premium to J. T. Godfrey.

Best red wine two years old—First premium to B. N. Bugbey; second premium to J. T. Godfrey.

Best red wine one year old—First premium to A. Haraszthy; second premium to B. N. Bugbey.

Best exhibit of wines from foreign grapes by one grower—First premium to Martin Allhoff; second premium to Dr. J. Strentzel.

Best exhibit of wines, including number of varieties, vintages and quality—First premium to Kohler & Frohling; second premium to A. Haraszthy.

ENTREES FOR STATE PREMIUMS.

Mission Mills, San Francisco—Seven pieces of flannel, No. 223, grey, 32⅜ yards; No. 109, purple, 33 yards; No. 108, rose pink, 33¼ yards; No. 190, crimson, 33¼ yards; No. 107, orange, 34½ yards; No. 70, scarlet, 281 yards; No. 350, blouse, military, 32½ yards; five pieces military cloth; No. 211, 28¼ yards dark blue, 6-4 wide; No. 268, 24⅜ light blue, 6-4 wide; No 96, 26⅜ cassimere, 6-4 wide; No. 939, 31½ yards Sisters Charity, 6-4 wide; No. 940, 23 yards Sisters Charity; three pairs large size family blankets, first quality; three pairs medium size blankets; one steamboat blanket; one pair four-point purple blankets; one pair four-point scarlet blankets; one pair four-point crimson blankets; two pairs four-point Vicuna blankets; one pair four-point blue blankets: one pair four-point green blankets; one pair four-point gray blankets; one pair Mackinaw blankets; one pair four-point white and black border blankets; one pair four-point fancy border blankets; three United States army blankets.

Pacific Glass Company, San Francisco—Samples of glassware.

J. W. Jacobson, Marysville—Two jars spirits of turpentine; two jars resin; two jars turpentine, in crude state.

Tar made by Isaac Chase of Sacramento—sample 3½ of barrels made.

Resin made by John Hart, of Marysville, and J. C. Gibson of Forbestown, Butte county.

Pitch made by Hucks & Lambert, of San Francisco; 10 barrels made.

Wine bottles made by the Pacific Glass Works at the Potrero; quantity not stated.

Cotton plantation of about 16 acres, by Jackson & Johnson of Sacramento county.

Tobacco in bales, by the following parties, viz: Joseph Kile, Thomas Edwards, J. Bird, Cook & Simmons, J. S. Curtis and J. Daubenspeck. Tobacco manufactured by Thomas Edwards and R. Gabriel. Of the leaf tobacco, Thomas Edwards furnishes affidavits that he has baled and packed 19,801 pounds, and a statement that he has 500 pounds additional on hand, the whole being in merchantable order. The Act authorizes $300 for the first 20,000 pounds produced.

Cordage, by the San Francisco Cordage Company.

Ale and porter, by John Mason, of San Francisco.

Beer, by E. C. Gruhler, of Sacramento.

Most of these articles have been rejected for want of proof of their being exhibited at the district fairs at Stockton and Marysville, as required by law; but the fact is patent, to those who have seen the specimens, that all the articles can be profitably raised or manufactured within the State.

Special Premiums.

The following articles come under the head of special premiums, not being mentioned in the schedule:

Best exhibit furs—First premium (diploma) to Adolph Muller.

Exhibit of woolen goods—First premium (diploma) to Mission Woolen Mills.

Exhibit of copper ware—First premium (diploma) to Lord, Holbrook & Co.

Lager beer—First premium (diploma) to Gruhler & Co.

California wine vinegar—First premium (diploma) to A. Bergman.

Prescription case of chemicals, instruments and fancy goods; also one case of perfumery and toilet articles—First premium (diploma) to Justin Gates & Brother.

Case medicine, California manufacture—First premium (diploma) to H. Bowman.

Exhibit surgical instruments, perfumery, etc.—First premium (diploma) to R. H. McDonald & Co.

Herbarium of native California plants—First premium (napkin ring) to Mrs. J. K. Brown.

Catawba wine—First premium (diploma) to Dr. J. Strentzel.

Sparza's punch—First premium (diploma).

State Premiums.

The Board—consisting of the Governor of the State, President of the State Agricultural Society, President of the San Joaquin Valley Agricultural Society, President of the Northern District Agricultural, Horticultural and Mechanical Society, and the President of the Mechanics' Institute of San Francisco—appointed under the Act of the last Legislature to award State premiums on certain articles of domestic manufacture, etc., have submitted a partial report, awarding the following premiums:

Mission Woolen Mills, San Francisco — 525 yards woolen cloths, $1,000; 175 pairs blankets, $1,000; woolen drawers, $75; woolen undershirts, $75.

Pioneer Paper Mill, Taylor & Co, Tomales, Marin county, Over 1,000 reams printing paper, $1,000.

Nash & Fogg, Stockton — 300 pairs of boots made in the State, $125; six hundred pairs of shoes made in the State, $125.

It is but just to mention that the exhibit of the manufactures of the Mission Woolen Mills, formed one of the most attractive portions of the Fair, and the quality and finish, as well as the great variety of the goods manufactured by them, elicited praise from the thousands who examined the various samples. We intend to speak more at length, another time of the Mission Woolen Mills.

Among the awards made, the following first premiums were to exhibitors from San Francisco.

C. H. Harrison, for best eccentric steam force and lift pump.

D. Norcross, for regalia, fringe, buttons, tassels and embroidery in gold and silver.

H. T. Graves, for wirework and bird-cages.

A. S. Hallidie, for wire-rope.

Nash & Fogg, for boots and shoes.

Kohler & Frohling, for three kinds of wine.

J. T. Godfrey, for wine.

Frederick Zeck, for pianoforte.

August Koehler, for trusses and medical bandages.

J. Q. A. Warren, for printing, *Wine, Wool and Stock Journal.*

H. Tubbs, for rope.

Eureka Soap Co., for soap.

Mission Woolen Mills, for exhibit of woolen goods.

J. M. Griswold, for unfermented bread.

George Pfaff, for flutes and picolo.

V. Squarza, for punch.

Oak Knoll Views.—We have just received from the Author a set of the above views. For the accommodation of those of the late lamented Mr. Osborne's friends who have not been able to provide themselves with these views from the edition exhausted some time ago, a limited number of setts have been delivered at Mess. Roos & Wunderlich's to respond to the demands of any one desirous of securing a memento. Attention is also called to the single views of Oak Knoll and surroundings, for sale at the above establishment—as any surplus of the said views will shortly be sent East to the relations of the deceased. The above are for sale at Roos & Wunderlich's Art Depot, Montgomery St.,—also Vischer's views of the Washoe Mining Region, in portfolio, or in Envelopes convenient for mailing. Also Vischer's Portfolio of the Mammoth Grove, new edition, twelve sheets, twenty-five views, with title and pamphlet.

In the Western and Middle States there is a great demand for labor of all kinds, and the New York *Journal of Commerce* says "that anything that has two good hands upon it, is seized with avidity by the needy farmers and well paid.

Edward's Eagle Brewery, Petaluma.—We had the pleasure, while on a late visit through Sonoma County, of paying this establishment a visit, a brief description of which we give below:

Size of building, 45 feet front by 80 feet long, with cellar of the same dimensions and 20 feet deep, with temperature of 55° Fahrenheit. An artesian well, 198 feet deep, with an inexhaustible supply of the best water in the city. Steam boiler and engine of eight horse power, together with all the modern improvements of steam brewing apparatus. The Establishment is capable of producing 450 gallons of ale per day. It supplies the counties of Sonoma, Napa, Marin, and Mendocino. "Edward's Ale," is known throughout the State; it has always received the first premium at the several industrial fairs, and is allowed by connoisseurs to be the best ale on the Pacific coast. The making and brewing is carried on under the entire supervision of Mr. E. and two of his sons. They use, *almost entirely, hops* of California growth, which are raised in Green Valley, about fifteen miles from Petaluma, at the hop yard of Bushnell, Dows & Co.

The malting departments are quite spacious, enabling them to make all their malt in winter for the summer use, the winter being the most favorable time for making malt. We were shown over the establishment by Mr. Edwards, Junior, who explained every feature of the manufactory, which seems to be conducted on an enterprising and business-like scale.

Acknowledgements.—We have received by mail from the publishers, the new work, entitled "Fine Wool Sheep Husbandry," by Hon. Henry S. Randall, L. L. D., author of "Sheep Husbandry of the South," "Practical Shepherd," Etc., with an appendix containing valuable statistics in reference to Wool Culture, Imports, Prices of Fine Wool, from 1840 to August 1st, 1863, published by C. M. Saxton, & Co., New York. A valuable work for sheep raisers; being the substance of a paper read before the New York State Agricultural Society, Feb. 12th, 1862, and embracing valuable topics: the origin of the Merino, its varieties, its introduction into the United States, and many valuable chapters upon the subject of breeding and the prospects of wool husbandry in the United States. We shall make extracts from this work, from time to time, as we consider the subject an important one, and well handled by the author, who is undoubtedly the best and most careful writer on the subject, in the United States. Orders for the work will be filled by applying to the publisher of this journal.

New Music.—Mr. Horace Waters, the well-known Music Publisher and Piano Dealer, of 481 Broadway, New York, has recently issued the following popular pieces of music, entitled, "The O. F. March," dedicated to Brig. Gen. Albert Washington Smith, by Thomas Baker; "Summer House of Roses," gallop, by Mrs. Parkhurst; "Dear One I Think of Thee," song, by J. W. Hardwick; "Christ Will Care for Mother Now," answer to "Who Will Care for Mother Now," arranged for the piano, by Mrs. Parkhurst; "Evacuation Song," as sung, with great success, at Father Reed's Old Folks' Concerts. The above music has just been received from the publishers, by Steamer Golden Age.

New Livery Stable.

THE march of improvement in livery stables, in this city, is almost incredible, and there is no city in the Union where more elegant and commodious "horse restaurants" are kept for the accommodation of that noble and faithful companion of man, than in San Francisco. The last new stable is that of Messrs. Saxby & Byington, located on the former site of the mechanical bakery, on Bush Street, between Montgomery and Kearny. The proprietors of which have, at a great expense, completed an edifice of great strength, with every device for the comfort of their equine boarders. The front room on the lower floor, contains ten stalls, 6 by 11, with the partitions so high that the horses cannot get their heads over to quarrel with and bite one another, an arrangement carried out in all the stalls in the building. The back room, on the street floor, is a carriage house, with washing tank and gratings. The upper part of the house contains twenty-eight splendid stalls, with plenty of space in all, adjunct to these rooms are commodious sleeping rooms for the hostlers, so that they are always close to the horses, day and night. The horses kept in this stable, for hire, are all lively and good tempered, and the vehicles of the most approved manufacture. The ventilation of the whole building is perfect, particularly the second floor, which is unsurpassed. On the lower floor, near the front entrance, is the harness room, robe stand, office and wash room. The whole interior of the building is properly arranged for the business carried on, without lavish expenditure, but with a due regard to economy as well as comfort and convenience. Give these gentlemen a call.

SINGER'S SEWING MACHINES.—While, as a general thing, the Sewing Machine people are candid enough to acknowledge that these Machines are unequaled for *manufacturing purposes*, they are almost sure to assert, in the same breath, that Singer's "Letter A" or Family Machines *are not as good as theirs!* This is a mere *trick of the trade*, and those interested in the subject are invited to examine for themselves, and see what the "Letter A" or Family Machines, with all the improvements which have brought them to their present perfection, are capable of doing. At the State Fair these Machines attracted universal attention, and the work, for its beautiful finish and execution, took a special premium, of a diploma. See advertisement.

PEOPLE'S OPPOSITION LINE OF STEAMERS.—This line of steamers is fast gaining popularity by their regularity and promptness of dispatch, and the comforts and facilities afforded passengers on the route. The change of route to Aspinwall enables passengers to be carried through without delay, over the Panama Railroad and thence on board steamer Illinois to New York. A most convenient and comfortable line, so we are informed by passengers who have come through with their families, and free from any annoyance or imposition.

6,000 coffee plants are growing in Smith's Gardens, near Sacramento. They stand the winter in this climate. The State gives $1,000 for the first 150 pounds of coffee raised in California.

MISCELLANEOUS.

BY THE establishment of the Liverpool, Western, and Spanish American Steam Packet Company of an agency in San Francisco, California is brought into direct communication with the European markets, at rates of freight which are only a little in advance of those charged by way of Cape Horn, and as all war risks on the Atlantic side are saved, the advantages which this new line offers, in disposing of our wools, wines and other produce, will be seen at a glance.

DEFICIENCY IN THE ENGLISH HOP CROP.—This year there is a deficiency in the English hop crop. It is estimated that the whole crop will yield only 150,000 bales, leaving a deficiency of from 50,000 to 70,000 bales. In Bavaria the crop will also be short by about one-third of its usual quantity. In the United States and Germany, however, there will be a surplus, and if our hops are properly picked and cured, they will stand a good chance of being preferred. An Eastern paper, quoted in the San Francisco *Bulletin*, advises that not over 200 pounds should be put in a bale, and that the bagging should be of the best quality.

THE fruit crop of Michigan, this year, will be the largest ever known. It is estimated that peaches alone will yield 250,000 baskets.

THE Monterey *Union* says that there will be an extra yield of grain per acre in most parts of that valley.

The editor of the San José *Mercury* has been presented with a small sack of large potatoes, one of which, a pink-eye, weighed two and three-fourths pounds. He says if anybody will send him a cent's worth of salt, he would live in clover for the next week. *Happy man!*

We would not object to be sacked in the same way.

PROF. WHITNEY, the State Geologist, states that the big trees of Tuolumne are 1,250 years old.

COMMERCE on the Mississippi is being slowly resumed.

SOME specimens of cotton grown in Java have been received at Liverpool, England. They are described as equal to "fair, middling American."

SO DEFICIENT in labor are the farmers of Northern Illinois, that German girls are employed in the labors of the harvest field. Their wages are a dollar a day.

ALL THE intelligence received from Europe, in regard to the crops, is favorable,—that from Great Britain being most encouraging.

FLAX.—Flax is now used quite extensively in some parts of Wisconsin, for manufacturing purposes. At Milwaukie, there are exhibited, specimens of flax as white as snow, and also colored with the most brilliant hues; calico made of fifty per cent. of flax; cotton flannel, one half flax; felted cloths, and a variety of other manufactures, of which flax is a component part. The market sales of these calicoes is six cents per yard. As handsome an article of broadcloth is manufactured from this cottonized flax, as could be desired.

ONE LARGE MAMMOTH POSTER PRESS, 36 by 48, with two rollers, all in complete order, and nearly new, can be bought at a very low figure, by applying immediately at the publication office of this Journal, 517 Clay Street, San Francisco.

THE Virginia *Bulletin* estimates the annual yield of bullion in Nevada Territory at $730,000,000. The *Enterprise* reduces the figure to $30,000,000. Both declare that figures won't lie.

PROFESSOR Brewer, of the State Geological Survey, is to be appointed Professor of Practical Agriculture and Botany, at Yale College.

THE TOBACCO TRADE OF ST. LOUIS.—For what is termed the tobacco year, from the 1st of October, 1862, to the 30th of September, inclusive, the number of hogsheads sold by public sale in this city was 14,407 hhds. (of which 8,544 hhds. were sold at the State warehouse, and 5,863 at the city warehouse), against 8,609 hhds. last year; making an increase in this year's business over last, of 5,807 hhds.

THE copper smelting works at Antioch, in Contra Costa County, have commenced warming up their furnaces, so as to get them in readiness for their regular business. Orders for smelting have already come in from the paying copper claims of the State.

THE people of Nevada Territory have voted almost unanimously in favor of calling a convention to frame a Constitution for the State of Washoe, and the delegates elected thereto are all Union men. All hail, Washoe, the silver State of the Pacific!

DEVOE, DINSMORE & CO. are making some new patterns of *Wine Presses*, to which we would invite the attention of *Wine Makers*. See advertisement.

THE hop crop has been harvested by all the pretty girls in Vermont, and is unusually large.

SQUARZA'S PUNCH.—The indefatiagble Squarza, compounder of the well-known delicious Punches, took the first premium at the State Fair at Sacramento.

LAKE Tahoe is becoming a favorite resort of pleasure-seekers. Some fine yachts are being placed on its waters.

Wool, Cereals, Minerals.

WE wish every wool grower in the State to send us samples of their wool for our sample table, also, of cereals, and products of the grain fields. To our friends in the MINING REGIONS, we would solicit specimens of the different ores, for our *Cabinet* at our new office, and ANY OTHER favors, especially SUBSCRIPTIONS.

OUR regular article on *Wines* arrived just as we were going to press, too late for this issue, which we much regret. It will appear in our December Number. Subjects: *Dessert Wines*, Wine Casks, Size of Wine Casks, Etc.

COMMUNICATIONS, Letters, Catalogues, Periodicals, Etc., Etc., intended for the perusal of the Editor, and packages by Express, should be uniformly directed to Editor Wine, Wool, and Stock Journal, San Francisco.

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GROWTH OF 1863.

Fresh Garden Seeds,
Grass and Clover Seeds,
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Received by every Steamer, at

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ALL WHO VALUE THEIR SIGHT WILL CONSULT THEIR interest by favoring me with their patronage. Applicants by mail will be furnished gratis with circulars, giving a minute description of the most valuable improvements of the present century, list of prices, and the necessary directions, enabling me to select glasses exactly suited to their eyes.

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A. G. RANDALL & CO.,

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TRAINS RUN TO MENLO PARK

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TWENTY LOTS ARE ALREADY SOLD,

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I intend to sell TEN LOTS MORE, CHEAP, and then raise the price. Terms and size of the lots to suit.

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Inquire on the premises of

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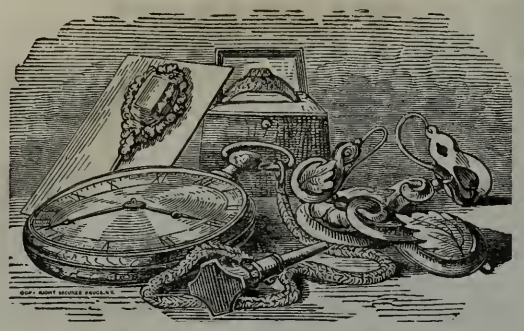

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CELEBRATED FAMILY COFFEE,

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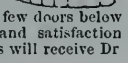

ACHING teeth or mere shells can be filled with it, and restored to health and usefulness by the discoverer, **DR. PEARSON,** (late Pearson & Crane,) No. 653 (Old No. 187) CLAY STREET, a few doors below Kearny. Vulcanized Rubber Work done if desired, and satisfaction guaranteed, or gold substituted. All Dental operations will receive Dr Pearson's personal attention.

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Plows, Harrows, Cultivators, Grain Cradles, Scythes, Snaiths, Horse Rakers, Hay Rakes, Threshers, Carts, Shovels, Grindstones, Etc., Etc.

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CALIFORNIA

Wine, Wool, and Stock Journal.

"FESTINA LENTE"—HASTEN SLOWLY.

VOLUME I. SAN FRANCISCO: DECEMBER, 1863. NUMBER 12.

For the Wine, Wool, and Stock Journal.

WINE MAKING—No. 6.

BY ARPAD HARASZTHY,

Master of Cellars to the Buena Vista Vinicultural Society.

Dessert Wines.

DESSERT WINES are those served up at the table with the dessert, and may be either sweet, or dry, red or white. They are all characterized by a rich flavor and a luscious taste. They are, generally speaking, very heavily charged with alcohol naturally, and those exported to foreign countries still more so by artificial additions.

Dessert wines may be made from any species of grape that attains perfect maturity in the open air, though those made from certain varieties are far superior to others. The *Muscadine* are the most favored in this respect, producing in the proper climate and with proper knowledge and care, always a superior wine. Of the varieties most proper for this class of wine we will speak in due time, as well as of the best varieties for making Raisins.

The French divide their dessert wines into three classes generally: cooked wines, (*vins cuits,*) sweet wines, (*vins de liqueur,*) and straw wines, (*vins de paille.*) To make either of these, the grapes must be quite mature, in which case they can be made in any climate, by means of artificial heat if the rays of the sun are not warm enough. Cooked and straw wines can be made from any variety of grape, but to make sweet wine, certain varieties are necessary, for though the wine made may keep sweet for one, two, and even more years, it finally will become dry. The wines that always remain sweet, are those made from grapes in which the saccharine matter predominates, and in which the *ferment* is lacking; there is not enough of it to convert the grape sugar into alcohol and carbonic acid.

To make *cooked wine*, gather your grapes when completely ripe, separate the green grapes, and those that may be mouldy, if there be any, and spread them on matting or on hurdles to the warmest rays of the sun. Every day carefully turn them two or three times, the more the better, and when the sun sets cover them over well with a cloth, boards or matting, to protect them as much as possible from the night dews and all humidity. Uncover them only when the sun is up. This do for five or six days. This passed, the grapes are all shriveled up, take them to the press, and press out the juice the same as for white wine. (See our last number.) Then take the juice and boil it by a slow fire, carefully stirring all the while, until it is reduced one-third in volume. Put it into a cask and place it in a warm place. Bung the cask up tight two or three days after. In about six months after, it will be fit to drink, will be clear and have a fine yellow color. It improves much by age especially if always kept in a warm place. It may or may not be constantly filled, and be drawn off or not as one pleases. For our part, we would draw it off once when settled about a month after making, and and then have it on its lees until just before bottling. We would also keep the cask full, though we are

not sure that the wine would be any better for these cares, as where this kind of wine is made, they are very much neglected, and still produce an excellent article.

Sweet wine is made exactly in the same manner as the cooked wines, with the exception of the boiling. They may be made red in fermenting them with their skins, instead of pressing first.

Vins de paille or straw wines, are those which are the most appreciated in Europe as dessert wines, with the exception of Tokay. The grapes, as before, are gathered when perfectly ripe, then chosen and laid upon hurdles or straw mats. They are thus left exposed to the sun several weeks, when the grapes are actually little better than raisins, then taken in and pressed, after which it is put into casks without any further preparation. This wine is delicious, but can only be drunk at the maker's, because it would be too dear an article to be bought.

In France, they expose the grapes to the sun for several weeks, but there, their sun is not as ardent as it is here. With us, a week of fine, hot weather would be quite sufficient after the grapes are very ripe.

When the weather is bad and moist, the grapes should be spread on the inside of the house, and the room in which they are put should be kept at a temperature of 80 degrees Fahrenheit and above.

In some places, and principally in the north of France, they pluck the grapes when ripe, and instead of drying by the sun or by a heated room, they dry them in an oven moderately kept warm. The grapes are placed on flat pans which are shoved into the oven, left to remain a short time, then withdrawn, left to cool, then again passed through the heated air of the oven. Each one using his judgment, *when* the grapes are sufficiently shriveled. The rest of the proceeding is exactly the same as those already mentioned. In Hungary, in the Tokay vineyards, the bunches of grapes are left to dry upon the vines themselves, the variety of grape allowing this practice, without fear of mould to the grapes, as is very likely to happen with most all other varieties. In some vineyards, to prevent the working of the juice, they give the stem a whole twist, and then leave the bunches on the vine. In others they cut the bunches, but lay them to dry simply at the foot of the vines on the bare earth. Each person has his own methods and keeps them. In many places, methods are consecrated by ages, and especially so where sweet and other dessert wines are made, because those places are most generally where modern science has not made herself mistress and ruler. But since these methods have given good and great wines, let us pay them due respect and homage until *we* can do better by *our* enlightened methods and new discoveries.

WINE CASKS.

Now we have come to the important question as to what kind of cask is the most favorable to put our wines in. Shall they be large or small? And of what timber? Can we in California have a timber of our own? Can we get it at our doors?

These are questions that are put to us by nine-tenths of our visitors. They are important because they contain the whole of our future as wine-makers. A large cask is, and has been, recognized to be the best to mellow and ripen wines of all classes. The fermentation, insensible, goes on in them regularly, and is aided by the mass. There is very little evaporation comparatively to the mass, and still taking the mass into consideration, the room occupied is but very little. Then there is less loss of wine and less trouble, for instead of having to look after twenty casks when small, you look after but one when it is large. These are the good points of large casks; their faults are, things that grow quick decay quick; the wine that becomes mature in a short time will degenerate as rapidly, after having attained perfection. The more light and delicate the wine, the quicker it will degenerate after a certain period in these large casks. Clearing is effected with great difficulty, and should you wish to move the wine to a different temperature you would find it difficult to do so. Another reason is, you have to sell your wine in large quantities, and it is often very difficult to find a purchaser for a large quantity, while you can often find one for a small quantity. Of course if you are able to find a purchaser, the more wine you sell the better for you.

Small vessels, though occupying much more room, and allowing a greater evaporation, and taking more time to ripen the wine, are better, after a certain period, for the preservation of the wine. Wine in them can be sold easier. For light and delicate wines, we certainly would give our preference to small barrels, such as 40 gallons, 60, 100 and 135 gallons.

There is a very great argument in favor of large casks, that is, the uniformity it produces; the large quantity of an uniform wine. A cask holding 20,000 bottles can satisfy a great many demands of the same person, while one holding 700 may do it but

once, and when he makes a new demand, he receives a wine not like the other (every cask has *some* difference,) and he naturally is dissatisfied, if the former pleased his palate more than the latter. And how many times does this same thing not happen? We ourselves experience it over and over again. Nothing is more disagreeable; 700 bottles make your reputation, and 700 destroy it. It is not the same with the large wine vessels, for, especially when from the same place or vineyard, the large masses present, invariably, less apparent differences. They are not so characteristically different from each other.

From what we say above, we conclude that for strong wines, for healthy wines, and for common wines, we prefer large casks; but for fine, light and delicate wines, we prefer small casks, those of 50 gallons.

What timber shall we make them of? Our California Oak is out of question; trials have been made and none came out right. It is too porous. We ought to have a wood at our doors, for imported wood would be too dear. We have already in a previous number spoken of Redwood as a substitute for oak for fermenting vats: with us it has proved a perfect success, not giving the slightest taste after being well steamed. This Redwood we recommend as the very best timber for all large or small casks that are intended for *keeping wine*, not for traveling. Our recommendation is founded upon the authority of persons who are considered the very best authorities in the State. As for our own personal experience, we have seen a wine, in the short space of six months, improve so much in a redwood cask, that we could hardly believe our taste. The same wine in an oak cask seemed at least a year younger. We give it as a sure thing, that redwood will improve the wine, that is, give it the qualities of age in less time than any other wood known to us.

This is all right; we have a wood at home that we can make our wine in—that we can keep our wine in. But what are we to do when we wish to send our wine abroad? This problem we are unable to solve, but we hope that soon there will be discovered some sort of wood to answer this purpose on the Pacific Coast. May be Oregon, Washington Territory, or British Columbia will come to our rescue. Even should we be forced to go further North, it is better than doubling the Cape. We for our part, always will advocate home produce, for with it goes our weal or woe. Our whole future prosperity depends upon the manner in which we encourage home produce. Our independence depends upon it!

May be one of the great advantages of redwood wine casks, is their cheapness. Where oaken ones will cost 25 and 30 cents a gallon, those from redwood will come to 4, 5 and 6 cents. The difference is not one to be despised, especially when we have to pay such interest as we do.

Another advantage is that redwood remains fresh and sound where oak becomes perfectly rotten. It resists humidity to perfection. All wine cellars are more or less humid.

All the redwood staves should be placed into a steam chest and steamed about fifteen hours to extract all the sap. If the casks be over 300 gallons, they should be furnished with *doors* in the head. With this disposition, the wine vessel is as good as one from any other wood.

SIZE OF WINE CASKS.

Every country has its customs, and we should have ours. California in a short number of years is destined to rank upon the same footing with France, Hungary, Germany and Spain, for the amount of wine produced and the quality. Since that then is to be our important destiny, it is high time for us to adopt a size, a uniform size of cask, that may be the most convenient for commercial purposes. This end would, in our opinion, be attained in applying the decimal system, which is founded upon reason, and which has proved itself a perfect success in every country. We have it in our coin, and we *ought* to have it in our weights and measures! As yet we *have* no adopted form for wine casks, and this makes the task easier, for we believe that it is just as easy to do a thing well at the beginning as to do it bad. We propose for commercial purposes the following wine casks:

5, 10 and 20 gallon casks, (we have them already,) then of 50 and 100 gallons.

Larger than 100 gallons we would not recommend for exportation. The casks are too unwieldy and too much risk is taken. Our preference is for 50 gallons, though it be dearer.

This question merits the most serious attention of all wine dealers and wine makers.

LIGHT-COLORED GRAPES.

What is the cause of so many light-colored grapes on the California vines this year?—(*October number.*)

The inquirer remarked these grapes, very likely,

upon vines that were already six or seven years old, and which were staked, that is, cultivated high from the ground. If the inquirer will pass through those same vineyards now, he will find that more than one-half of those same bunches have already acquired their natural blue, and have swollen up to a healthy and plump state. The grapes when he saw them were backward—they were green yet. There are, however, some cases where the grapes remain light-colored and never attain their blue, though this is not a general thing. Whenever we remarked this accident, we found that the vine itself was almost leafless and that it was staked. Upon examining the bunches closely, we also remarked that the stem was entirely shriveled up and exposed the whole of the day to the direct rays of the sun. Now, every one familiar with the cultivation of the vine, knows the injurious effects to its fruit when the latter is not sheltered by a shade. If the reader will excuse the originality of the expression, we will say: *the grape wants to feel the heat, not see it.* We conclude from these observations, that the stem not being protected, was dried up by the sun's ardent rays, and was thus rendered incapable of furnishing the grapes the necessary nutriment. We hope to see some new opinions addressed us on the subject.

PROPORTION OF CIRCUMSTANCES THAT INFLUENCE THE QUALITY OF THE WINE.

Nature of the plant or different plants	4
Nature of the soil	4
Direction of the inclination for white grapes	1
" " " " red grapes	1
According to the kind of cultivation, long pruning or short pruning, low vines or high ones, absence of manure or with it in plenty	3
Temperature of the year	5
Cares in making the wine	2
Total	20

This we cite from Count Odart, who, in France, is considered the best authority for vine raising and wine making, and who has been a wine maker for 60 full years past. We will speak of him more at some future day, and let us now give another glance at his table of proportions. By this table, which we take as a right estimate, coming from the authority it does, we intend to prove that we can make good wine in California.

In the first place, the plant counts for 4, and we can have any plant we desire, as they all grow here. Let us leave out the soil for the moment. The direction of inclination counts 1, and what inclination or slope can we not find in California? The cultivation can be undertaken in every shape, and is so now. This counts for 3. Next comes the temperature, which is justly marked the highest. This is our own element, it counts for 5. Next comes the management of the wines, which counts 2. If we don't yet know how to manage wines, we will soon learn, with patience and perseverance. We have already 16 points in our favor, as every person will acknowledge, though he be even ignorant of the topic. And then I do not think that any one, who is in the least acquainted with the geological formation of our State, will deny but that every known soil in the world may be found within its limits. Let the doubtful now come to us. Let them sneer and revile. Their sneerings will return to themselves, and they will be pointed to as fools. We have no more doubts, for we have *made*, we have *tasted*, and we have drunk. Our heart is full of hope, and our soul full of ambition, as we look forward into the deep future! Courage, and we will be victorious! And what a noble victory!! Those to whom we bowed down and did honor, will bow down and do honor to us!

California, your future is bright, but remember—"*Hasten Slowly.*"

Why Hogs Eat Ashes, Etc.

Mr. Mechi, of Tip-Tree Hall, England, has discovered that when pigs are shut up to fatten, are very fond of cinders, and improve in condition by eating a certain portion of them every day. Some persons are unable to account for this singular propensity in swine. Poultry are very fond of egg shells, lime, sand, etc., and it is well known these substances are necessary in order to form the shells of eggs, and to furnish material for the bones of fowl.

Now it is reasonable to suppose that swine eat ashes and cinders for the purpose of supplying the material for their bones; and this singular instinct in animals, so low in the scale of intelligence, is truly wonderful—for ashes contain the ingredients which are necessary to form bones, viz: carbonate and sulphate of lime, and magnesia, clay, silicia gelatinized and made soluble by the fire.

When hogs are at large, they take in clay and silicia with their food, and eat bones and roots which contain the necessary ingredients; but when they are pent up, they endeavor to supply the material necessary for keeping up their frames by devouring ashes and cinders. Let them have plenty of them.

Horticultural Department.

THINNING OF FRUITS.

Below we give an extract from the very able address of Hon. M. P. Wilder, delivered before the American Pomological Society, on a subject which will certainly interest our California horticulturists:

"One lesson which experience has taught us, is the importance of thinning the fruit, especially of apples and pears. This branch of Pomology has received comparatively but little attention. There is a limit to the capabilities of all created things. If you tax the energies of an animal too severely for a long time, the result will be premature age and decay. Subject any vegetable or mineral substance to too great a pressure, and you destroy its power of cohesion. So if you permit a tree to bear beyond its strength, you injure its fruit, retard its growth, and shorten its life. All have observed that superfecundity one year produces barrenness the next. Hence we hear among our farmers and gardeners of what they term the bearing year. They invariably designate the Baldwin apple as a tree that bears on alternate years. But is not the cause of this alternation found in the fact, that the abundant crop of the bearing year exhausts the energies of the tree, and absorbs the pabulum so as not to leave sufficient aliment for the formation of fruit spurs for the succeeding year? Many varieties have a tendency to overbearing, especially those which produce their fruit in clusters. Nature, herself, teaches us the remedy for this evil, and a superabundance of blossom is generally followed by a profuse falling of the embryo fruit. When and where this dropping is not sufficient to prevent overbearing, we should resort to the process of relieving the tree of a portion of its fruit.

"The organism which carries on healthful developement, in order to repeat its cycle of functions from year to year, can not be overworked without time for recuperation. Whatever of nutrition goes to the support of useless branches, or a redundancy of fruit, abstracts that strength from the tree which would otherwise be appropriated to the perfection of the crop, and the developement of the spurs which would bear fruit the next year. One of the best cultivators in the vicinity of Boston has reduced this theory to practice, with the happiest effect, in the cultivation of the pear. His system allows no useless wood, nor more fruit spurs, and no more fruit, than the tree can properly sustain. As a consequence, he produces every year superior fruit, which commands the highest price. Some have doubted whether this practice can be made remunerative, except in its application to the finer fruits. But another cultivator, who raises an annual crop of the best apples, assures us that the secret of his success is the thinning of the fruit, and he has no doubt of the economy of the practice. No good farmer doubts the necessity of thinning his root crops, no *vigneron* the propriety of thinning his grapes. Analogy of cultivation, therefore, justifies the practice, and I entertain no question of its great importance.

"Light, air, and moisture, are essential to the production of vegetable produce, and especially of fine fruits. Who has not observed that the best specimens of fruits on a tree are ordinarily those which are most exposed to these elements? Who does not select the full sized ruddy fruit, which has had free communion with light, heat, and air, in preference to the half fed specimen which has shared its own its own proper nourishment with five or six crowded rivals on the same spur?

"An experienced English cultivator says: 'The bending of branches of trees by an overcrop of fruit is most injurious, far the pores of the woody stalk are strained on one side of the bend, and compressed on the other; hence the vessels, through which the reqnisite nourishment flows, being partially shut up, the growth of the fruit is retarded in proportion to the straining and compression of the stalk.' This is illustrated in the overbearing of some varieties, which, from a redundancy of fruit, without the process of early and thorough thinning, seldom produce good specimens, and in a few years become stinted and unhealthy trees. The overbearing of a tree is as much a tax upon its energies and constitution, as is the exhaustion of a field by excessive crops of the same kind, year after year, without return of nutritive materials. Inexhaustible fertility is a chimera of the imagination. Sooner or later, the richest soils will require a restoration of what has been abstracted by vegetatation. However fertile at first, the constant overcropping of the soil is a reduction of the elements on which health and fruitfulness depend. This great principle of sustenance and reciprocal relation runs through the whole mass of life, of mind, and of matter.

"One cry with never ceasing sound,
Circles Creation's ample round."

"Intimately connected with this process of thin-

ning, is the time when the work should be executed. It should not be done before we can distinguish the choicest specimens in a cluster of fruit, nor delayed so long as to waste the energies of the tree. This practice, judiciously followed, will supersede the necessity of staying up the branches, will prevent injury to the tree by their breaking, and will prove decidedly economical.

"Associated with the thinning of fruits, is the expediency of gathering a part of the crop as soon as it approaches maturity. The remaining specimens will thereby be much increased in size and exeellence. The fruit of a tree does not all come to maturity at the same time, hence this successional gathering will turn the crop to the highest practical account, and will keep the productive energies of the tree in a healthful and profitable condition.

"Does some one say, leave all this to Nature, and not attempt to mend the ways of Providence? But was not man ordained to help Nature, and placed in the garden to dress and keep it? True, God has enacted general laws, but requires us to turn them to the highest practical account. Thus he has given us in fruits and flowers forms of beauty and loveliness, and has assigned to us the duty of bringing them to the greatest possible perfection. It is, too, by a co-operation with Nature, in what we may esteem little things, that the highest achievements in science are reached, and the most valuable results attained. The ocean is but the accumulation of drops, and the mountain is but the rolling up of pebbles. From the slender spire that trembles beneath the weight of the dew drop, to the lofty monarch of the forest, whose hoary branches waved in the breeze a thousand years before the birth of the Christian era, we have signal proof of the law of mutual dependence and support.

"Fruit trees will not take care of themselves. Constant vigilance is the price of superior trees or superior fruit. The poet may sing of the

> "redundant growth
> Of vines and maize, and bower and brake
> Which Nature, kind to sloth,
> And scarce solicited by human toil,
> Pours from the riches of the teeming soil;"

but the cultivator of fruits must realize the fact, that without care and skill he cannot depend on uniform and continued success."

Five millions of acres are devoted in France to the cultivation of the Vine. The product of wine is said to be but two gallons per acre.

GRAFTING FRUIT TREES.

The best time for grafting trees is as soon as the sap is in brisk circulation. Scions should, however, be cut before the buds have swollen, and be kept in a cool, damp cellar till the time for setting them arrives.

For covering the wound and supporting the scion in its place, either clay or wax is used. The former is prepared by mixing one-third clear horse-dung and two-thirds clay with a little hair like that used in plastering. It should be thorougly mixed together and left to temper for a few days before being used. It should be so soft that it can be easily worked by the hands, and yet so firm that it will keep its place. Strips of cloth or tow should be wound round the clay and tied with a string.

Various recipes are given for the preparation of grafting-wax. Perhaps the following from Downing's work on Fruits and Fruit Trees, is as good as any:

"Melt together three parts of bees-wax, three parts of rosin and two parts of tallow. While yet warm it may be worked with the aid of a little water, like shoemaker's wax by the hand. The common grafting wax of the French gardeners is of two kinds. The first is melted and laid on with a brush in a fluid state, and is made of half a pound of pitch, half a pound of bees-wax, and a pound of cow-dung boiled together. The second, which is spread while warm on strips of coarse cotton or strong paper, and wrapped directly about the graft, answering at once to tie and protect it, is composed of equal parts of bees-wax, turpentine and resin. The grafting wax most commonly used here is made of tallow, beeswax, and resin, in equal parts, or, as many prefer, with a little more tallow to render it pliable. Grafting wax is a much neater and more perfect protection, than grafting clay, but the trifling cost of the latter, where a great deal of work is to be done, accounts for its greater use by nurserymen and gardeners generally.

A German agriculturist professes to have discovered a remedy for the potatoe disease. Before he plants his potatoes, he washes them in chlorine water and dries them in the sun; and by this method his crops have been saved for several years.

Severe Frost in the West.—There has been another severe white frost all over the West, which has killed vegetation generally.

FULL BLOOD FRENCH MERINO SHEEP,
Property of Samuel Brannan, Esq.

SHEEP HUSBANDRY.

We commence the first of a series of articles on "Sheep Husbandry," and "Wool Stapling," in all its details, written in a plain, simple style, by a gentleman thoroughly experienced, and which will be found to contain much valuable information to all interested in Wool Growing in California, and we hope they will be carefully read. The articles, which are entirely new and original, are being published for the first time, in the columns of the *Southbridge* (Mass.) *Journal*, and by the arrangements we have made, we are enabled to present them to our readers in advance of any other paper.

SHEEP HUSBANDRY NO. 1.

It is a somewhat strange anomaly that while rapid progress has been made in every department of agriculture in this State, that of sheep husbandry has fallen off to a great extent. And when we consider the important relation which this branch of agriculture bears to manufactures and commerce, it appears still stranger that the political economist, who we should expect would be ever directing his attention to the developing of the resources of the country, should have allowed this important subject to pass unnoticed. We think had there been as great efforts to make wool king as there has to make cotton a sovereign power, the latter could not have reigned without a rival.

An idea of the importance of the subject may be gathered from the following figures. In our manufactories in the United States, we are annually consuming about 125,000,000 pounds of wool; that we only produce about half that quantity; that we shall import this year worsted and cottons to the amount of $17,367,672; that nearly every yard of broadcloth consumed in this country is imported, and a large portion of our fancy cassimeres, and a large amount of our coarse woolens, blankets, and carpets, are also imported. I am not sure that if we consider every article imported, into the consumption of which wool enters, we should find that we imported as much in a manufactured state as we manufacture. If this is correct, then in order to supply ourselves with the raw material of which we ought to manufacture, we should require in addition to what we now raise, about 190,000,000 pounds—making a total of about 250,000,000 pounds—and this while many of our western farmers are without a market for their corn because it will not pay for transportation, whereas wool is fetching a high price, and sheep would consume their corn, and which roots could be raised more easily, and which are excellent food for sheep. They are better than

corn, and should either be dispensed with, it should be the latter.

But to come near home, our own State is well adapted for growing wool, but during the last twenty years there has been a great falling off. We find by reference to statistics, that the number of sheep in this state in 1840, was 378,226; in 1850, 188,651; in 1860, 113,111; being a decrease in twenty years of 265,115. In 1845, the number of pounds of wool grown was 1,016,230; in ten years from that time the decrease in the production of wool was over 600,000 pounds. In the same year the value of sheep and wool was $923,000; in 1855 it was $464,989, showing a falling off of nearly a half million of dollars. In 1850, the wool produced in the State was 585,000 pounds, while the amount consumed was 22,000,000 pounds, exclusive of domestic manufacturers. In 1860, while the quantity consumed had greatly increased, the production had fallen to 373,789. Could anything be stranger than this, with a market at their doors and cash at delivery? But there is a cause for everything, and there are a number for this. One we think has been removed, in the protection afforded the farmer by what is known as the dog-law, one of its wise provisions being found in section 64: "Whoever suffers loss by reason of the worrying, maiming or killing of his sheep or lambs by dogs, may within thirty days after he knows of such loss, present proof thereof to the mayor or select men of the city or town wherein the damage is done, and thereupon said officers shall draw an order in favor of the owner upon the treasury of said city or town for the amount of such loss."

Other causes and their remedies will be pointed out in a series of articles to follow on this subject.

"When we ask the question why has sheep-raising fallen off to such an extent in this State?" we always receive the ready-made answer, that it does'nt pay. But when we ask why it does not pay, we do not always receive so ready an answer; but we are frequently told that wool does not bring a price sufficientiy remunerative. Yet it is a fact, that wool for a number of years has averaged a higher price in this country than in England, while the American farmer does not, on the average, pay more purchase money for his land than the English farmer does annual rent for his, and makes raising sheep one of the most profitable branches of agriculture.

That it has not paid, we do not doubt, and one cause we noticed above, and showed that the cause was removed.

Another very important cause, is the want of that careful attention which can only insure success in our business.

In too many instances. the farmer, after obtaining a good flock of sheep, has almost left it to itself; he has not taken the pains to keep up his breed that he takes with his other cattle. We do not say that he has not fed them well, that he has not in a certain sense taken good care of them; but he has sold his lambs year after year, and continued to breed from his old ewes; he has kept his old buck, or others raised from his old flocks, and that too, from degenerated ewes, which practice would in a few years not only deteriorate the quality of the wool, but would also reduce the quantity. It would also reduce the size of the lambs, and seriously affect their fattening qualities, and would also reduce the size of the sheep, and this would manifest itself soonest and most seriously in the best breeds.

We may expatiate much on the different breeds—we may wax eloquent in favor of this one, or that one—but unless proper attention is paid to those principles which produce and perpetuate good breeds, we talk and write in vain.

All our different breeds of sheep have their origin from one source—the wild, hairy animal still found upon the mountains in Asia Minor, Barbary, Greece, &c.—from which, when brought under the fostering care of man, the rank, hairy fibres gradually disappear, while the soft wool around the roots, which is scarcely perceptible, becomes singularly developed. The male undergoes this change more rapidly than the female, and always continues to possess far more power in modifying the fleece of the offspring than the female parent. Always bear in mind, however, that the age and vigor of the parents will do much towards modifying the general law. By paying strict attention to this great principle, changing and crossing of rams, we have obtained such variety of breeds and have so far advanced from the parent stock, that the relationship appears obliterated. But though there appears such a wide difference between our domestic breeds and their wild origin, yet there is a tendency upon the part of the fleece of the domesticated animals to return to that of the wild animal. This is most rapid in the ewe. She will not be neglected by man; if she is, her fleece will suffer, and under the very best care the fleece of both male and female deteriorates every

year. It is finest, strongest and heaviest the first year, and it continues to become lighter and coarser every year, and the more lambs the ewe has, the faster the fleece deteriorates; it will be found that it is not the ewe that produces most lambs in the year that is eventually the most profitable.

The first manifestation we have of deterioration in the fleece is the increase in the long hairy part that grows upon the hind leg. In young, well-bred sheep, this is scarcely perceptible. In the old degenerate sheep it extends to the body, and the top of the staples is full of coarse hairs, with a white hair in the bottom called a kemp. When sheep are thus far run out, it is about as easy to produce a good flock from the wild species as from them. The wild ones would have health and vigor on their side, which the domesticated would not have. An old ewe's fleece not otherwise degenerated, is known by its shortness, coarseness and thinness of staple, with a dry, harsh feeling, cotted and felted bottom; or if this is not the case, the staple is rendered very weak and tender.

[TO BE CONTINUED.]

LAW OF NEWSPAPERS.—1. Subscribers who do not give express notice to the contrary, are considered as wishing to continue their subscription.

2. If subscribers order their papers stopped, publishers may continue to send them until all charges are paid.

3. If subscribers refuse or neglect to take their papers from the office or place to which they are sent, they are held responsible until they settle their bills and give notice to discontinue them.

4. If subscribers move to other places without informing the publishers, and the paper is sent to its former direction, they are held responsible. Notice should always be given of removal.

5. The courts have decided that refusing to take a paper or periodical from the office, or removing and leaving it uncalled for, is *prima facie* evidence of fraud.

Postmasters are required by the regulations of the Post Office Department, to notify publishers once in three months, of papers not taken from their office by subscribers.

THE FOOD CROPS IN GREAT BRITAIN.—The English journals say that the quantity of food produce in Great Britain this year has never been equaled in any previous season.

EXCELLENCE IS WHAT PAYS BEST.—The man who is first in his calling is pretty sure of making a fortune, no matter what his calling may be, only so it be not disreputable or criminal. Some fifteen years ago, a Kentuckian who could "beat the world at whistling," used to draw crowds, at twenty-five cents a head, to hear him whistle. He was doing a fine stroke of business, and would, no doubt, have laid up something handsome for a rainy day, had he not, unfortunately, got into the habit of "wetting his whistle" so often that he spoilt it. The fruit-grower, whose grapes, apples, peaches, pears, etc., are decidedly better than anybody else's, is certain to make a fortune. Increase of excellence is paid for at rates that enable it to outstrip increase of quantity. A diamond as big as one's thumb is worth a peck or so of diminutive sparklers.—A horse that can trot in 2:20 is worth a stable full of three minute nags. The highest excellence is the thing that pays best. Let the young remember this in time, so that excellence in whatever they may have to do may become a second nature in them. This would insure to them success, fame and fortune.

THE CULTURE OF SILK.—Our townsman, Mr. L. Prevost, has been engaged for the past three years experimenting with the silk worm, and has met with the best of success. Our pure atmosphere is admirably adapted to the growth and health of the worm, which requires far less care than in other countries. His worms are entirely free from disease, and remarkably productive. He proposes to publish a small work on California Silk Culture, which, it is hoped, will awaken a more lively interest in this interesting and profitable businuss. Mr. Prevost is a gentleman of large experience in horticulture, and with the ability and means to successfully carry out what he undertakes.—*San Jose Mercury.*

THE RESULT.—The San Francisco Spirit of the Times says:

John D. Winters, Esq., of Carson City, has purchased of Judge H. C. Melone, his fine ranch, containing five hundred acres of land, situated three miles south of San Jose, for the sum of fifteen thousand dollars. We presume Mr. Winters will stock it at once with the choicest breeds of thoroughbred cattle—the horses he already has.

We know a number of other fortunate Washoeites who have purchased farms and vineyards in our State. "Spades are trumps,"—and will always win.

CALIFORNIA

Wine, Wool, and Stock Journal.

"Festina Lente,"—Hasten Slowly.

SAN FRANCISCO, DECEMBER, 1863.

COMMUNICATIONS, Letters, Catalogues, Periodicals, Etc., Etc., intended for the perusal of the Editor, and packages by Express, should be uniformly directed to Editor Wine, Wool, and Stock Journal, San Francisco.

TO ADVERTISERS.—The WINE, WOOL AND STOCK JOURNAL now has a liberal circulation through the State among wine-growers, wool and stock raisers, dairymen, and agriculturists generally. Nurserymen, stock-raisers, inventors of new machines, will find our columns the place to make known their business; and now is the time to advertise.

POSTERS—PRINTING, ETC.—We are prepared to get up Illuminated Posters and Showbills, for Agricultural and other Societies, in a style of typography hitherto unattempted in this State; we will also execute to order, all kinds of work for *stock breeders*, race meetings, nurserymen, and others; having received a supply of beautiful cuts, specially adapted for the purpose—specimens of which may be seen at our office—address orders to the publisher of this paper.

NOTICE TO DELINQUENT SUBSCRIBERS.—We will feel grateful to our Subscribers, who are indebted to us, (as per bill enclosed in last number,) by remitting the same *during the present month*, that we may have the benefit of the same at the time we need it the most. Those who have had a year's credit, especially, cannot make any complaint at this modest request, and we shall *look upon their promptness* as a mark of *encouragement* and *satisfaction.*

REVIEW.

PAST, PRESENT, AND PROSPECTIVE.

Our retrospective glance shall not be a lengthened one, extending little more than twelve mouths, or about the period when we first contemplated the commencement of THE WINE, WOOL, AND STOCK JOURNAL. We then felt that a Periodical, devoted to the great and varied Agricultural interests of this State, was much needed—that is, one that would chiefly occupy its columns with articles specially adapted to, and written purposely for the exigencies of this particular portion of the United States.—Formally impressed with this conviction, we resolved to at once test the accuracy of our judgment, by direct appeal to the opinion of the public. Unlike the ordinary custom adopted, of first canvassing for a list of paid up subscribers, on whose united capital thus collected we might securely commence operations without fear of being liable to any personal pecuniary loss, we at once launched our little bark on the ocean of public opinion, in the modest hope that its unpretentious character and useful purpose might screen it from the storms of virulently adverse criticism, and secure some share of the favoring gales of popularity and patronage.

In every respect, our success has fully realized expectation, though it falls far below what our Agricultural friends might bestow, and as we flatter ourselves, with mutual benefit.

The absence of unfavorable criticism we attribute in a great degree to the total absence of party and sectarian features, which will always mark the conduct of the WINE, WOOL, AND STOCK JOURNAL.

And in proof that such motives are duly appreciated, we may mention, that in addition to our more than threbled circulation in California and the neighboring Territories, and in promising and rapidly increasing list of subscribers in the Eastern States, we have received not unimportant accessions to the general list, from the Society, and Sandwich Islands, China, etc.; and some matters originally published in this Periodical have been found not unworthy of insertion in some English Journals of no mean repute.

We have already alluded to some of what we conceive to be the main causes of our success, and which have contributed so much to the smooth and onward progress of our undertaking; we cannot, however, conceal from ourselves that, even conceding to the fullest extent the favorably conspiring circumstances already detailed, our task would have been a difficult one, our path strewn with thorns, and sharp cutting stones, had it not been for the favorable assistance so kindly offered us by the press of this as well as adjoining States. In a case where the entire of our daily and the most important and respectable part of weekly and semi-weekly contemporaries throughout the State, have so kindly and almost unanimously assisted our efforts by their favorable notices, it would be invidious to discriminate. Each and all, therefore, we hope will be kind enough to accept our most sincere and grateful thanks for their individual and united assistance, and not esteem it the less heartfelt because it is shrouded in a general form. We hope to merit a continuance of such favorable notices, by an honest

and zealous attendance to the duties pertaining to our sphere, and to which, the favorable opinions of the contemporaneous press has been such a pleasing stimulant, and grateful excitement.

We think we may rely, without being chargeable with too much egotism, on our past efforts, as indications of the fulfillment of future promises. A brief recapitulation of these may therefore be useful. Notwithstanding the greatly enhanced value of paper, the direct and indirect results of internecine war, and taxation, our work is not only on the same quality of *white* paper with which it commenced its career, but the reading matter has been doubled, being now 24, in place of 12 pages.

The typography is of the same excellent quality with which it commenced, and which is the general characteristic of all works emanating from the printing house of Messrs. Francis, Valentine & Co. On this point, the most satisfactory evidence we can adduce is, that The Wine, Wool, and Stock Journal obtained the *First Premium* for excellence in typography, at the last State Fair.

This will perhaps form the fittest place for us to express our gratitude for the many acts of kindness and attention given by our printers to the interests of the Journal, acts which we trust to be able, through the more extended patronage which we hope to ensure in future from the public, hereafter to reciprocate.

So much for the past. For the present, we can only say, that we feel all that cheerful confidence consequent on the quiet and complete fulfillment of not overstrained expectation, added to the pleasing prospect of a rich and extensive field before us that remains unharvested—comparatively in a commercial sense, untouched. As time makes our efforts more generally known, throughout the lesser peopled and comparatively uncultivated districts, we feel confident that the Journal will become more widely appreciated, and the list of our patrons greatly increased.

To our past subscribers we here tender our best thanks, for the cordial manner in which their patronage has been extended to us, and for which we respectfully solicit a continuance; and we hope they will afford it us in that most *practicable form*, which will put us in a position to increase the bulk, and add to the quality of the matter which, in future, we hope to prepare for them, namely, by forwarding to us, in the most convenient manner to themselves, their subscription for the year 1864, as the present number will complete *Volume One*—and also, when procurable, the addition of one or more neighboring non-subscribing friend.

For the future, we may say, in the words of the bard of Avon, "Let the galled jade wince, our withers are unwrung." Physically young, and participating in the youthful vigor of our State, and sympathizing most heartily with all its varied, glowing prospects and interests, we hope to cheerily proceed onward with its progress, "growing with its growth, and strengthening with its strength;" receiving such a proportional amount of personal support therefrom, as our efforts and merits deserve.

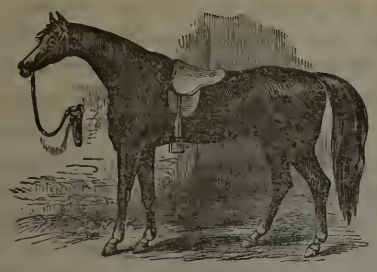
Respecting the other great interest—Mining—we we have this month devoted a column, to which we respectfully refer, not only our readers, who may be directly interested in the subject, but also all others, because, indirectly, all are more or less affected by the prosperous or non-prosperous condition of mining affairs.

We take leave of our readers for the current year, by wishing them the compliments of the season, "*A Merry Christmas* and a *Happy New Year*, and many, many of them," hoping under Divine Providence that we may be spared to make many such annual felicitations, and at the same time possess the same satisfactory feeling on glancing over the past, as we do at the prospects of the forthcoming year.

All new subscribers for the year 1864, will have the present number sent to them, in addition, and free from extra charge.

By the time a second season comes round, we hope we shall have been enabled, by the aid of friendly contributors, to have succeeded in collecting a tolerably complete assortment of Agricultural and Mineral Specimens for our Cabinet, in illustration of the *Industrial resources* and *wealth* of our State, and immediate Territory. *We hope our friends will not neglect this matter.* We may conclude, by assuring our readers and friends, *that any change which may take place in the* Journal, *will simply arise from giving additional reading matter without any additional charge for the same.*

Cotton Growing in Indiana.—Indiana papers state that some of the growers in that State have cotton which has been cropped, that is now between five and six feet high—that the bolls are very full, and that it is likely to turn out much better than was anticipated.



In Breeding Horses—Do the Stock take most after the Sire or Dam?

So important is it that agriculturists should have definite ideas on this interesting subject, that we this week place it at the head of our column, a query addressed to us by a correspondent from Kinross. Judging from prevailing practice, we can scarcely avoid the conclusion, that farmers generally deny that the mare has much or any influence on the development and growth of the progeny. How else can we explain the notorious fact that an immense proportion of the breeding mares throughout the country are selected not on account of their superior appearance and qualities, but because age, accident, or hereditary defects have rendered them less valuable for work. How opposite is this to the more rational practice of those keen horsemen, the Arabs. Money fails to purchase their best mares. According to the view first distinctly set forth several years ago by Mr. Orten of Sunderland, and concurred in by most good judges, the progeny appears especially to resemble the dam in the head, carcass, internal organs, and temper, whilst the influence of the sire is more especially noticeable in the color, and the form and style of the limbs. Thus the powers of endurance depending upon the deep chest, arched ribs, and well developed lungs, are the valuable qualities of many a priceless mare, and descend with great certainty to her offspring by various horses. On the other hand, the colts got by particular stallions usually exhibit great similarity in color, in the style of their action, and also in the defect of their limbs. If the horse has been subject to splints, spavins, or such other bony deposits, a large proportion of the colts will exhibit a similar tendency. This view must not, however, be carried too far. It must not thence be presumed, that the sire exercises no influence upon the development of the internal organs or temper, or that a mare's weak or mis-shapen limbs will not re-appear in her progeny. It only justifies us in saying, that whilst the male and female appear to impress their characters tolerably equally upon their offspring, the characters peculiarities, and even the diseases of the internal organs, are in the majority of cases those of the female parent, whilst the skin and organs of locomotion usually indicate the preponderating influence of the sire. From this law, however, two important practical deductions may be safely drawn—1st, never to breed from mares with narrow, contracted chests, or weak loins, or delicate constitution; and 2d, to eschew as decidedly entire horses with weak, badly shaped, or diseased limbs.

But other influences are at work affecting the share which the two parents have on the offspring. The parent in the highest state of health and vigor always imparts more than its own share of character. Thus the progeny will more resemble the active, vigorous, young stallion, than the old worn out mare to which they may be put. Hence the importance of maintaining in a healthy and natural state all animals intended for breeding purposes. It is further most interesting, that of the two parents, the best bred or highest descended is most strikingly reproduced in the offspring; and this is so notorious, and applies so constantly to all the higher animals, that breeders should avoid all half-bred sires, and use only such as have, in addition to good shapes, a fair, unblemished pedigree. The character and qualities of such parents being transmitted through many generations, are more permanently and indelibly fixed and are greatly more likely to be impressed upon the progeny. Thus a well bred Short Horn bull will produce from a lot of ordinary cows, calves resembling their sire and each other in color, heavy flesh, superior quality, and all other good points. The strong capability of such well bred animals to reproduce their good qualities, may be judged of by the frequency and persistence in their stock of certain slight markings. How frequently, for example, do well bred bulls, with a strong infusion of Duchess blood, get their calves out of cows of all sorts and colors distinctively marked with the white spot on the loin, and frequently also on the tail!

To obtain a tolerably certain result in breeding, parents must be selected possessing tolerably similar characters. Uncertainty and disappointment are sure to follow from the attempt to breed from unlike or very dissimilar parents. Thus failure generally follows the union of the draught mare and thorough-bred horse, or *vice versa*. The dissimilar characters of such unlike animals cannot be properly

blended in the offspring, and nondescript horses with big heads, deficient action, weak limbs, and bad feet, are the usual results. All this, we thought, was already sufficiently well known to every farmer and breeder, and yet we this week met an intelligent gentleman returned home from the Cape, and purchasing to take out with him a number of cart fillies to be put to an Arab, and from this violent and unsuitable union a good stamp of riding horse is expected. Time and money would be greatly better spent on strong active, half-bred mares, which should, in our opinion, be put, not to an Arab, but to a strong, stout, well-actioned, short-legged English thorough-bred.—*North British Agriculturist.*

"A Squash that is Some Pumpkins."—California is celebrated for raising *Squashes*, as well as contributions to our Sick and Wounded Soldiers all the Union over; but we have a waistcoat pocket edition of the former, in our office, which makes people's eyes stick out of their heads, when they visit our Sanctum. We don't know whether it has "got its growth" or not, but it weighs about the tenth part of a ton, and measures about the nine-hundredth part of a mile in circumference; it is big enough to furnish pies for the dessert of all the bummers in San Francisco, and would require at least four hogsheads of Squarza's Punch to wash it down and promote its digestion.

This is the *bona fide Big Squash* which received the First Premium at the State Agricultural Fair, and was raised by Geo. Cone, Esq., on the Sacramento river.

Patent Office Reports.—We hope to be able to furnish the Patent Office Reports on Agriculture, as well as Seeds for distribution, to every subscriber to our New Volume, as we are making such arrangements as will enable us to receive them from the Patent Office at Washington—direct—this Winter.

Other *Premiums* will be duly announced.

To Book-Sellers and Music Dealers.—All books or music intended for review or notice, should be sent to publisher *Wine, Wool, and Stock Journal*, San Francisco. As our Journal has a large circulation among families, and the reading community, publishers will find it to their advantage to send us their works as soon as published.

Subscribe for the *Wine, Wool and Stock Journal.*

Veterinary Department.

FOUNDER (LAMINITIS) IN HORSES.

(continued.)

By R. Jennings, Veterinary Surgeon, Professor of Pathology and Surgery in the Veterinary College in Philadelphia.

In my last I asserted, "The primary cause of founder to be in a hard, brittle, and generally contracted condition of the hoof." Now let us see how far this theory will hold good. Nature has provided the hoofs as a protection to the soft and delicate structure contained within their horny limits. Hoofs are either black, white, or the two colors blended together in perpendicular lines. The black hoofs indicate strength. The white hoofs weakness —which gave rise to an old saying:

"If you see a horse with one foot white, buy him,
If you see a horse with two feet white, try him,
If you see a horse with three feet white, look well about him,
If you see a horse with four feet white, go away without him."

Exceptions to this, like all other rules, occasionally occur.

This generally supposed weakness may be in consequence of white hoofs being more porous than black ones, hence more liable to lose their moisture by evaporation. Thus we may account for the liability of white-hoofed horses to lameness. The hoof in a state of nature is soft and elastic, yielding and expanding when the weight of the animal is thrown upon it; this fact may be easily proven, by taking the foot in its natural condition, and marking the circumference upon a piece of paper, when the weight of the animal is thrown upon it, and then elevated from the ground, the circumference is to be taken in the same manner; by these means the degree of expansion will be plainly manifested.

In order to comprehend my meaning, we will go back a little further and examine into the causes which produce this hard, brittle, and contracted condition of the hoof. Shoeing may be regarded as the first great cause of brittleness in the hoof, aided by standing in the stable without exercise, upon hard, dry ground, or upon plank floors, &c. In such a position, no moisture can be absorbed by the hoof, and that which originally existed, soon becomes absorbed or evaporated, leaving a hard, brittle hoof behind; this condition of the hoof ren-

ders concussion greater, particularly in the fore feet, in consequence of the extra weight which they support, exposing the feet to a variety of diseases, which otherwise would not occur. I risk nothing in the assertion, founded upon my own experience, that nine out of ten cases of lameness in horses occurs in the feet with hard, brittle hoofs; quarter crack, for instance, can only occur in such a hoof, an elastic hoof you may pound and bruise as much as you like, but you cannot make a clean split or crack in it, any more than you can in a piece of glue moistened sufficiently to bend. Horses in a state of domestication live out an artificial life, hence they require artificial means to keep their hoofs in a healthy condition. Contraction of the hoof is caused mainly, I may say only, from bad shoeing. My object in making such an assertion, is, not to persecute the smith, but to direct his attention to a few plain facts, which I have learned in my experience in veterinary practice.

Many of our smiths have sought such means as were within their reach, to acquaint themselves with the structure and workings of the feet, in order to overcome, as far as possible, the evils of shoeing. Such men deserve the encouragement and support of the community.

The foot is a very complicated piece of mechanism, and like all other complicated machinery, easily deranged. Diseases are the penalty of a violation of natural laws, hence the smith should be familiar with the functions or purposes, for which the feet are intended; so that in making and fitting the shoe, he may do so without interfering, more than is necessary, with the natural workings of these important appendages. We have already represented the foot in its natural condition, as quite elastic; therefore in applying the shoe, it should be so constructed as not to interfere with this expansion. The shoe should have a perfectly level bearing for the quarters and crust, hence the expansion of the heels will not be interfered with, more than from the hampering of the nails. Examine, if you please, the ordinary shoe used on all occasions, and on all forms of the feet, the principle of which is decidedly wrong; no one form of shoe will answer all forms and conditions of the feet. Place a level across the heels, and you will find that the shoe at the heels will present a concave surface, being beveled from without inwards, hence the foot rests in a concavity. When such a shoe is nailed to the foot, it is impossible for the heels to expand up these inclined planes, hence the tendency to force them inwards, so that they gradually become contracted. This is a natural result, and follows, sooner or later, every case where shoes have been thus constructed. On the other hand, a shoe properly made and fitted has never been known to cause contraction. Look at the feet of a horse coming from sound stock, before he has ever been shod, you will find open, expanded heels; observe the same animal in one or two years after, and you will find the space between the heels considerably diminished; the cause of this difference is in the bearing of the shoe forcing the heels inwards. In either contraction, or a hard, brittle hoof, the expansion of the hoof does not take place, hence the sensitive parts become bruised between two hard, unyielding surfaces, the coffin bone within, and a hard, brittle hoof without. Such a condition of the feet existing, their functions necessarily become impaired, which upon long continued exercise, upon hard roads, causes the feet to become fevered, and upon watering when warm, etc., frequently terminate in acute inflammation of the sensitive structures of the feet; this condition of the parts is known as acute laminitis or founder.—When we consider our subject properly, we find that horses are seldom foundered in the hind feet. Why? Simply because the hind feet are not subject to contraction, nor is the hoof so liable to become hard and brittle, as is the case with the front feet. Another cause of founder is hereditary predisposition.—*Am. Stock Journal.*

Volume One.—Bound volumes of the *Wine, Wool, and Stock Journal*, for 1863, *Vol.* 1, are now ready. Subscribers wishing their *Journals* bound, in neat style, can send their files to us by mail, and they will be returned with despatch, neatly bound. The Journal is worthy of preservation, and will be found valuable for reference in the future. Missing or damaged copies will be replaced without extra charge.

Those wishing Bound Volumes, will please apply early, as the supply of back numbers is limited, and cannot be reprinted.

A firm of biscuit manufacturers in Carlisle, England, by way of showing what could be done by rapid work, recently had a field of wheat reaped, the grain thrashed and ground, and the flour made into biscuits, which were served hot on the breakfast table at eight o'clock, in exactly four hours from the time the sickle was first put into the standing grain.

STALLION'S BOXES.

Boxes suitable for Stallions, though requiring but little novelty of arrangement, should receive some attention, regarding the design of the elevation, in order to render the building a more prominent and pleasing feature in view of the Stud Farm.

Each box should have a separate yard, in order to allow the horse to exercise himself at times. The walls and gates of the yard should be at least ten feet in hight, and the materials of the box strong, well seasoned and substantial, to avoid constant repairs.

The boxes must be well ventilated, that the atmosphere may be even, pure and mild, sufficient to prevent the walls being tainted by the slightest closeness or damp. They should be lined inside with elm boarding, (or a proper substitute,) about five feet high.

No racks should be used, but the corn, hay, and water should be given side by side. The corn and water in separate iron mangers, or troughs, and the hay in a boarded well, between them.

The small doors communicating with the fodder house should be protected inside by strong half-doors of the above material. The large doors opening into the yard should be made to slide into the wall, as otherwise the horse, when left alone, and at liberty, is apt to play with or to gnaw them. All the fastening should be of the strongest description, and in every instance where it is possible, worked flush inside.

Fourteen feet square is a good size for a stallion's box, and twenty-five feet by twenty a good dimension for the yards. The yard doors of the boxes should be provided with side-rollers, to prevent any accident, or "hipping" in galloping in or out suddenly. Each yard should be provided with a water-manger, fixed in the corner, made of cast iron, with a hole in the bottom, stopped with an ordinary wooden plug. The boxes should be paved with brick, laid on edge in sand, upon a concrete foundation, formed of five parts of coarse gravel to one of unslacked lime, having a fall from each corner to a center perforated drain stone. The drains should be carried to a cesspool outside, as far removed as possible from the building. Everything—windows, doors, locks and fastenings, should be made flush *inside*—and all protected as far as possible from the gnawing propensities. Let all be perfect and appropriate, and remember, "that whatever is at all worth doing, is worth doing well."

ON BREEDING DOMESTIC ANIMALS.

LARGEST VARIETIES NOT THE BEST TO THE BREEDER.

It would seem that the largest domestic animals are not always the best or most advantageous to the breeder or feeder—because we often find that the large, big-boned cattle and sheep require more and better food in proportion, to support and feed them, than those of a middling size and small bones; and the larger, bigger-boned, and clumsier they are formed, the more unprofitable they are; while on the contrary, the truer they are formed, and the finer the bone, the more profitable—as they not only take less food in proportion, but feed readier.

SMALL-BONED ANIMALS PREFERABLE FOR MEAT.

It is averred that no large-boned animal will feed so quick, or cover so readily and thick, with fat flesh, as one with a *small bone*, if well formed. This is the criterion—this is the main principle that we found our judgment upon, respecting all animals which are to be fatted for the support of mankind. Notwithstanding this assertion is made with some degree of positiveness, yet we are not unconscious of its being perhaps a *new doctrine* to the generality of breeders in this country, and consequently may appear surprising to many old breeders and graziers. But we have not a doubt if the advocates for large bones will make fair, candid trials, the small bones will win, or gain the prize nine times out of ten—or rather every time.

While asserting this, we wish it to be understood, that we mean from the time of calving or lambing, to the time of killing for the market; because the grazier, who *buys in* and feeds, and he that *breeds* and feeds are two very different people. It is the latter of those that the public are obliged to for that useful observation, of small-boned animals excelling large-boned ones in feeding; because he sees, watches, and examines the various pushes and improvements, from the beginning to the end; while the grazier, who buys in his stock, is easy in a great measure, *how* they are bred, so long as they pay him for feeding.

A plain, coarse, ugly animal, may pay him more than a fine, well-made one; because he buys the coarse one at a much less price in proportion, and it is of little consequence to him, as an individual. But to his country, or the community at large, it is a matter of prodigious importance, much more than is in general thought of, because the more meat and less bone you can produce from a given quantity of

pasturage, turnips, cabbage, etc., the better surely, and more mouths you must feed.

THE BEEF OR MUTTON WORTH MORE.

The beef or mutton is finer grained, sells higher by the pound, and worth more to the consumer than the other, because it affords more and better flesh, and less bone. In fact it is the cheapest and best eating to the rich and to the poor, especially to the latter, who are under the necessity of buying the coarse parts, for economy, it is worth more in proportion than the coarse of the large-boned ones, because though still coarse, it is finer than the others, and has less bone.

SHORT HORNS VS. LONG HORNS.

It has been observed by writers, that the long horns excel, in the thickness and firm texture of the hide, in the length and closeness of the hair, in their beef being finer grained, and more mixed and marbled, than that of the short horns—in weighing more in proportion to their size, and in giving richer milk; but they are inferior to the short horns in giving a less quantity of milk, in weighing less upon the whole, in affording less tallow, when killed, and in being coarser made and more leathery in the under side of the neck.

The *Alderneys* are more of a distinct breed, celebrated on account of their giving exceedingly rich milk, to support the luxury of the tea table, etc.

They are very fine-boned in general, light red, or yellow in color, and their beef generally yellow or very high-colored, though very fine in the grain, and well flavored. We have heard of some good cattle bred by cross between the Alderney and Short Horn.

In a few words, the long-horns excel, in the hide, hair and quality of the beef—the short-horns in the quantity of beef, tallow, and milk. Each breed has had and may have their particular advocates, and is it not probable that both kinds have their own particular advantages?

It has in many cases, we are informed, been the mistake of the short-horned breeders in the past, to pursue the largest and biggest-boned ones for the best, without considering that those are the best, that pay the most money, for a given quantity of food—but their ideas are now becoming more enlarged on this point, and their minds open to conviction, so that in years to come, we may hope to see great improvements made in the breeding of short-horned cattle in our State.

Our readers are of course aware, that particular breeds are best adapted to particular situations, and it is better for breeders of cattle to find out which breed is the most profitable and best suited to their situations, and endeavor to improve that breed to the utmost, rather than try to unite the particular qualities of two or more distinct breeds by crossing, which is a precarious practice, for we generally find the produce will inherit the coarseness of both breeds, and rarely, if ever, attain the good properties which the pure, distinct breeds individually possess.

But it is not our purpose, at this time, to go into any lengthy detail respecting the various breeds of cattle; that will form the subject for a series of articles in our new volume.

THE CULTIVATION OF THE SUGAR CANE IN THE SANDWICH ISLANDS.—The cultivation of the sugar cane in the Sandwich Islands has been prosecuted this year on a much more extensive scale than formerly; but the enterprise is greatly interfered with by the scarcity of labor. This scarcity is one of great importance, and is giving the planters much anxiety. Some of them say that *it* is next to impossible to obtain help to carry on a plantation, even on the smallest scale, with success, and that unless some plan is soon devised by which more laborers can be provided, some of the plantations must be abandoned. It is stated that there is not a plantation on the Islands that has yet produced in one year 400 tons of sugar, or 800,000 pounds, though any of them are capable of producing 600 tons easily, if laborers could be had.

THE BEST FLOORING FOR STABLES.—At the last meeting of the American Institute Farmers' Club, held in New York City, the subject of the best flooring for stables came up for discussion. The opinion of the members present appeared to be in favor of wood, in preference to any other material. If a cement floor is made of broken stone, grouted with cement, it will be more durable, but more expensive than wood in the first outlay. A very good flooring may be made of gravel, clay, fresh cow droppings, and cut straw, thoroughly mixed, and not made soft with water, but beaten hard when laid down, at least a foot deep. Coal cinders are good to mix in the compound for an earth floor.

The loss to farmers by the recent frost at the West, is estimated at one million of dollars.

For the Wine, Wool, and Stock Journal.

CULTIVATION OF THE HOP—NO. 4.

CALIFORNIA HOPS.

In this State the cultivation of the hop is of comparatively recent date. We believe that the first hop yard was established six years ago, by Mr. Amasa Bushnell, of Green Valley, Sonoma County, and a few other farmers in his immediate neighborhood have devoted a portion of their land to raising the same kind of crop, though not on such an extensive scale. Among them we may mention the names of Mr. S. Dows, Mr. Smith, Mr. Allen, and Mr. Phelps.

The soil of Mr. Bushnell's farm is not very rich, it being a very light sandy loam, over quicksand. It holds moisture well and is very easily tilled, but is deficient in fertility. The best crop he has yet harvested yielded 550 lbs. to the acre. The alluvial soil on the banks of the Russian river, in the neighborhood, Mr. Bushnell thinks will yield double that quantity,—perhaps more,—as it possesses all the elements of fertility which the hop requires, to be raised in the greatest perfection.

The climate of that part of the State is not best suited for a large growth of the hop. It is very hot during the day, and cold during the night. In August, light frosts frequently take place, which stop the growth of the plants, and force maturity. A mild and humid atmosphere is best suited to their requirements.

The best time for planting is as early as March or April, as the ground can be got into perfect order by that time. During the first year the ground can also be planted with corn. Mr. Bushnell's method of planting is to measure the ground accurately, eight feet one way and ten the other, so that when he puts two poles to the hill, two feet apart, the squares will be eight feet each way—a very convenient distance for tilling. He puts male plants in every tenth hill of every tenth row.

During the second year, two poles are placed to the best hills, but the poorer hills do better with only one. The poles should be about sixteen feet long, and of sufficient size to stand upright under the weight of the vine.

The third year the vines will be, or should be, in full maturity, and from that time forward, if well cared for, they will last a lifetime. The ground should be thoroughly tilled with the plow, the cultivator, and the hoe, and the vines should be pruned way so as to have but two to each pole. Frequent manuring is necessary on Mr. Bushnell's land, and is desirable on any—even the best.

The season for picking commences about the last of August or the beginning of September, and as near as Mr. B. can estimate it, it is thirty days' work to pick an acre. The variety of hops in that district is the Golden Yellow, and as Mr. Bushnell has not tried any other, he cannot say whether it is best or not for California. His impression is, however, that it is as good as any.

In addition to Sonoma County, hops are also raised in Sacramento and other parts of the State.

The quantity of hops raised in California is estimated by one of the leading hop dealing firms of San Francisco, to be about 60,000 lbs. But whatever the precise quantity may be, she already produces more hops than she consumes. Their flavor at the present time is too strong, and before they can be used by the brewers they must be mixed with others. This rankness is supposed to be owing to to the richness of the land; but after the vines have had some years growth, the flavor will be improved. The aroma of the California hop is delightful, but owing to the growers not knowing how to press them properly, much of the volatile oil is lost. Some of the brewers say that they do not press them hard enough, and that they should use a hydraulic press, as they do in England. All agree, however, that the hops which are sent to market are not what they ought to be, and that their defects are chiefly owing to the ignoranee of the growers. Now, in the face of this, why should not the growers of California raise a fund and send one of their number to Europe, to visit the hop-growing districts, and study the best mode of culture there. That it would "pay," we entertain no doubt whatever.

COST OF CULTIVATION.

Wishing to lay before our readers an estimate of the cost of establishing a hop yard, we wrote to some of the leading growers in the State, and from the figures with which they supplied us, we have made the following calculation:

CAPITAL.

10 acres of Land, at $50	$500 00
Seed	10 00
Poles, 1,360 per acre, at $5 a hundred	680 00
Press	100 00
Dryhouse	300 00
Proportion of Farm Buildings, Stock, Teams, and Utensils	410 00
	$2,000 00

COST FOR TEN YEARS.

Interest at 1½ per cent. a month = 20 per cent. compound interest a year	$400 00
Wages—3 men for 6 months, at $25 a month each	450 00
Board of the same, (say $10 per month each)	180 00
Manure, 6 loads per acre, at 25 cents each load	15 00
Wear and Tear of Buildings and Utensils, (say 10 per cent. of capital)	200 00
Fuel for Drying, Taxes, Supervision, Incidental Expenses, Etc.	155 00
	$1,400 00

COST FOR EIGHT YEARS.

Picking, at $30 an acre	$300 00
Bagging, Twine, Etc.	40 00
Pressing, Etc.	15 00
Transportation to Market	20 00
	$375 00

TOTAL COST.

Making for 8 years	$3,000 00
Ten years	14,000 00
Total	$17,000 00

PROCEEDS.

From the third year, 600 lbs. an acre gives, in 8 years for 10 acres 48,000 lbs., which if sold at 37½ cents, produces	$18,000 00
Less cost	17,000 00
Profit in 10 years	$1,000 00

Loss—any deficiency below 35 cents a pound.

This estimate confirms the observation which the principle hop factor in the State made to us a few days ago, when conversing with him on the subject. He remarked that the growers said that if they did not get thirty-five cents a pound for their hops it did not pay.

Recently we read an article in an agricultural newspaper in which the writer urged the farmers to rush into hop-growing without an instant's delay. Now let us pause a moment to consider this advice. If carried into execution what would be the result of it?

We were told by the brewers, that already sufficent hops are produced to supply the whole State. Suppose, then, that the supply increases, a glut *must* ensue, prices must go down, and the farmer must put up with the loss.

The only market for the California farmer is in this State. Outside of it there is no chance for him. In the Eastern market he would be "nowhere," because labor being so much dearer here than in the old States he cannot afford to compete with the hop-grower on anything like an equality.

A few days ago we had a conversation with a merchant of San Francisco, who told us that when he was a boy, his father raised hops on his farm. If he got twelve cents a pound he considered that a remunerative price; if he got less he thought that he lost; if he got more, it was clear gain. But it will not do for the California farmer to sell at the same price, because he pays far more for cultivation and for implements of husbandry, and therefore requires a proportionate return for the labor and capital which he expends. He must also bear in mind that the hop-growers of the Eastern States can afford to produce a better article at a less cost, and sell it in the San Francisco market for a less price than the California grower can do.

It may be urged, on the other hand, that the State is rapidly increasing in population, and that, consequently, there will be a growing demand for hops for beer. True, but what we wish to demonstrate, is that it is madness for every farmer to turn his farm into a hop yard under the delusion that he is going to make a fortune. If they do so, there is no market for them, and their speculation may involve them in ruin.

POULTRY.

TO MAKE HENS LAY ALL WINTER.

Keep no roosters; give the hens fresh meat, chopped up like sausage meat, once a day, a very small portion, say one-half an ounce a day to each hen during the winter, or from the time insects disappear in the fall till they appear again in the spring. Never allow any eggs to remain in the nest, for what are called nest-eggs.

When the roosters do not run with the hens, and no nest-eggs are left in the nest, the hens will not cease laying after the production of twelve or fifteen eggs, as they always do when roosters and nest-eggs are allowed, but continue laying perpetually. We have known hens lay all winter, and each from 70 to 100 eggs in succession.

The only reason why hens do not lay in winter as freely as in summer, is the want of animal food, which they get in the summer in abundance in the form of insects. This theory has for several winters been reduced to practice, by the writer, and its entire correctness proved.

To Fatten Poultry.—Poultry should be fattened in coops, and kept very clean. They should be furnished with gravel, but with no water. Their only food—barley meal mixed so thin with water as to serve them for drink. Their thirst makes them eat more than they would in order to extract the water that is among the food. This should not be put in troughs, but laid upon a board, which should be clean-washed every time fresh food is put upon it. It is foul and heated water that is the sole cause of the pip.

For the Wine Wool and Stock Journal.

FARMERS AND EDUCATION.

The importance of education to all classes, but especially to the farming portion of our community, can not be overestimated. Farmers constitute the very backbone of every nation, and that they should be educated to the very highest possible pitch, is merely reiterating what all political philosophers have stated before. They should be highly educated in every country, but more especially in a republican country like our own. Republicanism implies a moral, law-abiding, intelligent, and well educated people; and as education is at the foundation of all that relates to the duties of citizenship, so it ought to receive the greatest attention from every patriot. Unless an American is an educated man he cannot discharge his duties as a citizen. That "Eternal Vigilance is the price of liberty," we all know full well; but unless a man has his mind expanded by judicious study at school, he is incapable of exercising that "vigilance" which he ought to exercise, and hence he becomes the victim of every plausible demagogue who can wheedle him out of his vote. How much mischief has b en done to the nation from the ignorance of voters, no tongue can tell. But of this we are firmly convinced—that if it were possible to find out those who have all along voted for the most unprincipled demagogues of the whole country, we should know that it was that class of ignorant men who despise our public schools. That there are many of those people in the United States is a lamentable fact, and not long ago we heard the present Superintendant of Education declare, in one of his public addresses, that the number of this class is as great as that by which a President is sometimes elected; and in some of the individual States it is as numerous as the majority which sometimes elect the Governor. Now, these facts, coming from such an authority as Mr. Swett, cannot be disputed. They are certainly very unpalatable, and not at all gratifying to our national pride; but it is just as well that we should be made acquainted with them, in order that we may set about correcting them. But how are they to be corrected? In this way, we answer. Let every man make it his imperative duty to send his children to school, and learn to read and write; and let him not be satisfied until he has persuaded his neighbors to do the same thing. Were this rule universally adopted, the "illiterates" in our country would, in time, cease to exist.

In San Francisco, with such an able superintendent as Mr. Tait, and such experienced teachers as we possess, the public schools will compare favorably with those of many an older city; but in the country districts, we are sorry to say the utmost apathy prevails in regard to this subject. In some of the richest counties, many of the schoolhouses are a disgrace to the State; while the system of paying a teacher with bricklayer's wages, and compelling the poor wretch to "board round," is a custom which may have done well enough in the days of Rip Van Winkle, but is decidedly out of place in California in 1863. How earnestly the Superintendent of Public Instruction is laboring to improve this state of affairs, the teachers of the State well know; but unless he is seconded by school trustees, and by farmers generally in every part of the State, they cannot be so successful as they deserve. We do most emphatically call upon our country readers to do what lies in their power to cooperate with the State Superintendent in his labors to make district schools what they ought to be; and as those labors are directed by experience and ability, all who are interested in the cause of education will heartily wish him God speed.

GROWING COFFEE IN CALIFORNIA.

We publish the following letter on the subject, just received, to which we invite the attention of our readers, and will be pleased to hear from any one on the subject:

SUTTER FLORAL GARDENS,
Sacramento, Nov. 22d, 1863.

Editor of the Wine, Wool and Stock Journal:

SIR—In the November number of your valuable Journal, I find the following: "6000 coffee plants are growing in Smith's Gardens, near Sacramento. They stand the winter in this climate." Now, sir, I have between 5000 and 6000 coffee plants growing in the Sutter Floral Gardens, Twenty-ninth and J streets, *in* Sacramento; but about their standing the winter in this climate, I have never had them a winter to try them. I have put in coffee seed from six different parts of the world since March last, hoping, of course, that *some of the kinds would stand the winter in this cliwate;* but if some of your correspondents have already demonstrated it, I shall be very glad if you will put me in communication with them, as no one in this State takes a greater interest in raising coffee here than Your ob't serv't,

JOHN SMITH.

THE FOLLOWING ARTICLES HAVE BEEN PLACED ON OUR EXHIBITION TABLE.—J. Strentzel, Martinez—Pomegranates; Pacific Glass Works — samples of Glass Bottles; A. Jackson, Sacramento — box of Cotton Bolls; Cutting & Co.,—sample Jars of Pickles, Gherkins, Jellies, &c.,—J. E. Cogshall, Sacramento—Citron; Mr. Allen, Green Valley—Hops; Chas. H. Merchant, Esq., Coos Bay—O. T., through Capt. Chas. Windsor, samples of Cuba Tobacco; E. Blackman, 10 mile farm—samples of Cuba, aud Conn., Seed Leaf Tobacco; Cook & Simonds, Marysville—Cuba Tobacco; Mr. L. Overheiser, Stockton—Sheafs of Wheat Barley; T. Edwards, Sutterville—Broom Corn; Geo. Hughes, San Francisco — California Almonds and Pea Nuts; Eugene Sherwood, Monterey County—samples of Saxony Merino Wool; Samuel Brannan, Esq., Nicolaus Ranch—French Merino Wool; Daniel L. Perkins, seeds-man—collection of bottles of California Garden Seeds; Melrose Zorn & Co., Cotton Seed.

ACKNOWLEDGEMENTS.—From Chas. Corliss, Esq., Haverhill, Mass., transactions of the Essex Agricultural Society, Massachusetts, for the year 1862; containing some valuable reports on sheep husbandry — and the able address of Geo. J. L. Colby, Esq., of Newburyport.

PORTRAITS OF STOCK.—The first of our series of illustrations for the new volume arrived by the Golden City—comprising portraits of fine Cotswold sheep, from Chas. Corliss Esq., of Massachusetts. They will appear in our January number. Others are on the way.

MINING.

In our earlier numbers, we devoted a portion of our journal to this important and greatly absorbing subject. The tide of opinion, however, set so strongly and inconsiderately into mining investments, that we felt the time had not yet come when moderate and judicious advice would be likely to receive a fair hearing; we consequently have for some time discontinued the insertion of a monthly recapitulation of mining affairs. Not that we have felt less interest in, or in any way modified our zeal toward the advancement of mining; on the contrary, we have been regretful and silent observers of the excitement which was evidently too intense to be permanent. We must not be here understood as implying that capital and labor, invested judiciously in mining, will be otherwise than permanently remunerative; we always have felt, and still do feel most fully, that under the conditions named mining for centuries to come in California and Washoe will be a paying institution. We have the assurance of a gentleman acquainted with the subject, that there are gold-bearing quartz lodes in California alone, that have never yet been taken up, that would profitably occupy half a million of men at three dollars to three dollars and a half per day wages, that would yield an average profit of one hundred per cent. on the daily outlay; also that ore containing from fifteen dollars to twenty dollars per ton ought to yield a small profit from the mines at Washoe, and the outlaying districts of California. We name these facts because an undue amount of despondency exists on this subject. There can be no doubt that many, who have burdened themselves with a greater amount of *feet* than they can safely afford to pay assessments for, must suffer, if they do not sink under their extra burden, and those who speculated not to hold, but for a rise, will have to pay the penalty of their indiscretion. Many such have been misled, and are to be pitied, the severity of the lesson which however is now being brought home to them will prove most salutary for the future of mining; it will demonstrate to the previously uninformed that to develop in a profitable manner even a rich mine, that the united assistance of capital, skill, and time, are required, and the whole of these will prove unavailing unless integrity exists among its officers, both honorary and paid. To meet such risks, as well as the average uncertainties and accidents which may always be more or less anticipated in mining operations, mines ought to yield a higher proportionate remuneration on the capital invested beyond those of ordinary mercantile affairs, or connected with real estate.

We have no doubt whatever that legitimate mining in California and Washoe will do all this, but hitherto legitimate mining has been smothered in order to promote mining on Montgomery street, and that kind of supply has, as it was sure to do, exceeded the demand. Now our advice to stockholders, especially such as those who have interests in mines that are undeveloped or about to be developed, is for them to accurately ascertain the real probabilities and chances of their property, and only to go on with such as they feel well assured will amply remunerate them for their outlay, and with such proceed at once and vigorously; those which do not offer sufficient inducements to adopt this course, get quit of the stock in any way, even at a total loss, for the first loss will be found the best; in this way, "wild cat" mines will in some measure be subdued within bounds.

We have had many communications from Washoe, requesting us to devote a part of our pages to many of the scientific and interesting topics connected with mining, and if our mountain friends will only furnish us with such an adequate number of additional subscribers as will secure us from loss by enlarging our paper we will cheerfully accede to the request, and if need be to issue THE JOURNAL more frequently. We feel well satisfied that if a portion of our publication was set apart for the diffusion of sound geological, metallurgical, chemical, and mechanical, information respecting mining affairs, it would be found most useful. To our views legitimate mining never looked brighter, notwithstanding stocks are looking dull and unpromising. With the compliments of the season to our mining friends we must part with them for the present, by observing that we feel a strong conviction that when the next annual period for congratulation comes round, we shall have the pleasure of reminding our mining friends that, for honest and legitimate operations, the year 1864 will have been more prosperous than that of 1863. In the interim, we *solicit specimens* of minerals from this, and the surrounding States, for *our Cabinet.*

PEDIGREES.

Pedigrees of animals not before published will be inserted for subscribers free of charge.

Persons sending pedigrees for insertion in the CALIFORNIA WINE, WOOL, AND STOCK JOURNAL, should take great pains to state them in full, and in a *clear* legible hand.

HORSES:

David Hill, owned by J. G. McCracken, Sacramento, bred by Chester Pratt, Esq., of Bridgeport, Vermont, was purchased by J. H. Hall, Esq., of Wisconsin, from whom he was purchased by Mr. McCracken, and brought to this State.

David Hill, was sired by Black Lion; he by David Hill's celebrated trotting stallion Black Hawk; he by Sherman Morgan; he by Justin Morgan, and he by True Briton, who was imported from England, and was used by Gen. De Lancy as a charger, while commanding the British on Long Island, in 1777. True Briton was a thorough-bred horse, of great speed and beauty. Black Hawk's dam was bred in New Brunswick, was three-quarter thorough-bred, and distinguished for fast trotting.

David Hill's dam was got by Hambletonian; he by Abdallah; he by old Membrino, and he by imported Messenger. Hambletonian's dam was the Charles Kent mare, by imported Bellfounder; grand dam by old One Eye, by old Hambletonian; he by imported Messenger, and the dam of old One Eye by imported Messenger. The dam of Abdallah was sired by imported Roebuck; his grand dam by Sir Henry, the horse that run four mile heats with old Eclipse, on Long Island, for $20,000, being the closest contested race on record.

Black Lion's dam was got by Liberty, and he by Duroc; grand dam by Sir Charles; Sir Charles was got by imported Diomede. [See Stud Book.] Sir Charles' dam was got by Plato, and he by imported Messenger; his grand dam by Brutus, out of imported Brutus.

Pete Jones, was foaled May 2d, 1857. Sired by Flying Black Hawk; he by Black Hawk Chief, by Black Hawk, by Sherman, by Justin Morgan. Dam of Flying Black Hawk, Pocahontas; dam of Pete Jones, old Stub. Old Stub, was foaled May 6th, 1837, the property of L. Potter, of Ferrisburg, Addison County, Vermont. Sired by Young Telescope, he by imported Telescope; dam of Young Telescope, sired by imported Messenger; dam of old Stub, sired by imported Messenger. Pete Jones, is a bright chestnut—and owned by R. G. Brush, Esq., San Francisco.

WOOL MARKET.

During the past month there has been rather more activity in the Wool market, but prices this Fall have not reached the figures of last year, the outside views of buyers being for Wool free from burr, 20c. Burry Wool has really been in no demand, and sales have been made in favor of the buyers, generally upon their own terms. Recent advices from the East, however, assure us that late improvements in machinery enable factories to extricate entirely the bur. If this proves correct, we may reasonably anticipate more favorable results next year. The Fall season may now be said to be at an end. The mills are out of the market, and shippers have generally filled their orders. In a subsequent number, we hope to be able to lay before our readers statistics showing the entire product of the State for the year.

We congratulate our readers on the condition of the Wool Market in Europe, of which the following is a copy from J. L. Bowes & Bro's. Wool Circular, of the 17th of October, 1863.

The Wool market has been gradually hardening for some weeks past, and the tendency of prices is upward. Consumption in nearly all branches is satisfactory, and in the Worsted districts unprecedentedly large. Domestic fleeces have been readily bought by Manufacturers at 23d to 26d per lb. for Leicester, Lincoln, Northumberland, and such long stapled kinds, and Southdowns at 22d to 24d per lb. Laid Highland 9d to 9½d, and Laid Cheviot 15½d to 16¾d. These prices are higher than the present generation of farmers have before seen.

Coarse and medium Wools scarce, more particularly long than short stapled. Donskoi has been selling "to arrive" at 11½d, and recently 12d, grey 9½d; our stocks of old Donskoi are insignificant, but the new will arrive in November and December. Washed Mogadore and Sfax are very scarce. Washed Peru sells at 15d to 16d; of unwashed none in the market. Washed Smyrna 12½d to 13½d, Angora 15d to 16d. Common B. Ayres, Rio Grande and M. Video scarce. Cordova held at 12d for ordinary. Grey Donskoi Noils at 9d.

To America the shipments of Wool from Europe have been light for some months past, excepting 5,000 bags Rabat, Mazagan, Algerian and Provence, from Marseilles to New York and Philadelphia. Orders for greasy Cape can not be executed. About 1,000 bales Mestizo have been bought or shipped on owner's account recently to New York and Boston.

Public sales of 30,000 bales East India, Mestizo and Mediterranean will commence in Liverpool, 21st inst.

Public sales of 11,000 bales Mestizo have been held in Antwerp this week, and most of it found willing buyers at ½d advance.

There will be an auction sale of Mestizo, in Havre, about the middle of November.

The London sales of 30,000 bales Australian and 25,000 bales Cape will commence the first week in November.

To Newspaper Publishers.—We wish publishers of *Agricultural, Scientific*, and Standard papers and Periodicals, throughout the world, to forward us copies of their Journals, for our *Reading Room*, (which is free to all,) and those desiring, we will exchange with.

As there are some Eastern and Foreign Journals which may be desired by residents in our State, publishers will please mark terms of subscription to same, and when disposed, can send duplicate copies for distribution.

Address—*Wine, Wool, and Stock Journal*, San Francisco.

A New Sewing Machine.—In no branch of mechanism has there been a greater amount of capital and untiring inventive labor expended than in the perfection and manufacture of Sewing Machines during the past few years. The operation of the "Florence," one of the latest applicants for public favor, are truly wonderful — so great an amount of work, and of such variety, can be done with so little and such simple machinery — make it the admiration of all who can appreciate beauty, utility and durability combined. While it has, as is claimed, all the valuable qualities of the many excellent sewing machines heretofore offered to the public, it has several important advantages over any and all of them, as the reversible feed; also, the making four distinct stitches, which enables the operator to select a stitch perfectly suited to every grade of fabric, and, where necessary, sew seams much stronger than it is possible to do by hand. Parties wishing to purchase a reliable sewing machine, will do well to see the "Florence," and examine its many points of excellence.

Cotton Seed and Cotton Gins.—We would inform such of our readers as wish to procure a supply of *cotton seed*, that they can procure it at the office of this journal, 517 Clay street, where samples can be seen. The seed was selected by a gentleman who resided for twelve years in cotton-growing countries, and is perfectly familiar with its mode of raising. The seed is of the best quality, and will be sold at a moderate price, in quantities to suit the requirements of purchasers. We have also two Cotton Gins for sale, which will be sold at a low figure.

NATHANIEL CURRY & BRO.

(SUCCESSORS TO CHAS. CURRY.)

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Guns, Rifles, Pistols, Etc., Etc.

No. 317 Battery Street, San Francisco.

Has on hand a large assortment of

Colt's, Derringer's, Sharp's, and Smith & Wesson's Pistols. Also, Sharp's, Wurfflein and Leman's Rifles.

Wostenholm's Bowie Knives & Pocket Cutlery

N. B.—N. CURRY & BRO. are the only authorized Agents for Derringer's Pistols, in California.

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PLUMBER AND HOSE MAKER,

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ALL ORDERS PROMPTLY ATTENDED TO.

1864. AMERICAN 1864.

SEED STORE!

Importer and Wholesale and Retail Dealer in every description of

SEEDS. GARDEN, FLOWER, FIELD, HERB, SHRUB, TREE, AND BIRD.

GRASS AND CLOVER SEEDS,

COTTON and TOBACCO SEED, Etc.

GUARANTEED FRESH AND PURE. ALSO, A LARGE VARIETY of Bulbous Roots, Plants, Etc.

Mercantile and Agricultural orders filled at the very lowest rates.

☞ CATALOGUES ON APPLICATION. ☜

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HENRY LEOPOLD,

— IMPORTER OF —

Singing Birds, Bird Cages, Canary Seed, Etc.,

Montgomery Street, near Sutter,

ANNOUNCES TO THE PUBLIC THAT HE HAS AGAIN OPENED at the above stand with a splendid variety of SINGING BIRDS, imported from Europe, and will dispose of them at moderate rates. Call and see.

SEEDS, SEEDS.

CALIFORNIA GROWTH.

The undersigned would call the attention of

Merchants and Gardeners

TO HIS LARGE ASSORTMENT OF

FRESH CALIFORNIA GROWN SEEDS,

Of the growth of 1863, to be found at the

PACIFIC FRUIT MARKET.

THE GOOD QUALITY OF THESE SEEDS ARE WELL KNOWN throughout the State. Merchants can have their orders filled, in suitable packages for retailing, and by myself in person.

All orders sent, by Mail or Express, to either Messrs. GRAVES & WILLIAMS, or myself, will meet with prompt attention.

☞ All Seeds packed with care, to go any distance. ☜

DANIEL L. PERKINS,

Pacific Fruit Market.

REMOVAL.

The undersigned, having completed and stocked their NEW FIRE PROOF STABLES, are now prepared to receive their friends and patrons at the

CITY STABLES,

No. 328 BUSH STREET,

Above Montgomery, - - - - - SAN FRANCISCO.

OUR STABLE WILL COMPARE FAVORABLY WITH ANY IN the State, and is constructed with a view to the health, comfort, and convenience of boarding Stock; and those who desire good care and a comfortable stable for their horses are invited to call and examine our premises, with the assurance that no effort on our part shall be spared to insure to them entire satisfaction. We have stocked our stable with a number of fine road horses and fine carriages, and those who desire to ride, either on pleasure or business, can be suited with good and gentle horses, and fine equipages, at moderate prices.

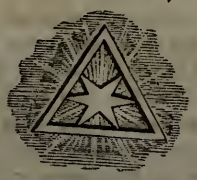
SAXBY & BYINGTON.

T. RODGERS JOHNSON,

MANUFACTURER OF

MASONIC AND ODD FELLOWS'

REGALIA,



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TO FARMERS!

SEEING THE GREAT NEED OF LABOR-SAVING MACHINES in this State, we purchased, in a late visit East, the RIGHT IN CALIFORNIA to the celebrated

WESTERN SEED-PLANTER,

With which a Boy and Team can Sow and Cultivate, in the best possible manner FIFTEEN ACRES PER DAY. This machine is simple and not likely to get out of order. This SEED SOWER AND CULTIVATOR is of novel construction. It Sows the grain broadcast, and so much more even than by hand, that it is estimated in "the West" to produce enough more grain to every eighty acres to pay for the Machine.

It can be seen at 630 Market Street, San Francisco. For further particulars address,

D. & H. A. WINTER,
No. 620 Market Street.

The following letter was received from a farmer in this State in recommendation of the Machine:

CENTREVILLE, August 2d, 1863.

MESSRS. DANIEL & H. A. WINTER—Dear Sirs: Thinking you might want to hear something about the working of your machine, I have concluded to write to you in praise of it, having done all that you said it would. I have sowed and cultivated eighteen acres per day, and 450 acres during the season. It has worked perfect and nothing has given out about it. It scatters the seed uniformly, and the scatterer being close to the ground, it gives the wind no chance to harm the sowing, and as the cultivator immediately covers the seed, there is no chance for the rain to catch the seed on the ground. I must say that I think your seed planter has proved a most desirable machine, and after working it the whole of last season, I take pleasure in recommending it to every one that farms over one hundred acres.

Yours Truly, A. BAKER.

First Premium!

THE UNDERSIGNED BEGS TO INFORM HIS FRIENDS AND THE public generally that the first Piano-forte which he submitted to public competition obtained the FIRST PREMIUM at the STATE FAIR, at SACRAMENTO, in 1863, in spite of much opposition.

EXCELLENT SEVEN OCTAVE, OVERSTRUNG and THREE SIDED PIANOS always on hand.

With every Piano manufactured by him a guarantee for five years is given.

Orders for TUNING and REPAIRING punctually attended to.

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NOW IN ACTIVE OPERATION AND READY TO RECEIVE ORDERS. All kinds of

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WINE BOTTLES, 6 to the Gal. $9 per Gross.

CARBOYS, PICKLE BOTTLES,
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Particular attention paid to Private Moulds. All Patterns made at short notice and lettered as desired.

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N. B.—Samples can be seen at the office.

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WEIL & CO. RECEIVE REGULAR SHIPMENTS OF GENUINE French Caporol and Snuff, Arabian Tobacco, French Clay Pipes. and German Pipes.

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ALL WHO VALUE THEIR SIGHT WILL CONSULT THEIR interest by favoring me with their patronage. Applicants by mail will be furnished gratis with circulars, giving a minute desctiption of the most valuable improvements of the present century, list of prices, and the necessary directions, enabling me to select glasses exactly suited to their eyes.

WATCH REPAIRING done by a skillful Swiss workman, and warranted. Jewelry neatly repaired. English, French and German spoken.

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HIGHEST CASH PRICE PAID FOR

Wool, Hides and Skins,

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SEEDS! SEEDS!

GROWTH OF 1863.

Fresh Garden Seeds,
Grass and Clover Seeds,
Flower Seeds,
Field and Tree Seeds,

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Champagne and Oregon Cider, Pure Vinegar

PICKLES AND SALT IN EVERY VARIETY OF PACKAGE.

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RED AND WHITE WINES,

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REAPERS, MOWERS,

Boston Steel Clipper and Cast Plows, all sizes.

Plows, Harrows, Cultivators, Grain Cradles, Scythes, Snaiths, Horse Rakers, Hay Rakes, Threshers, Carts, Shovels, Grindstones, Etc., Etc.

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At the Sacramento Agricultural State Fair of 1862

ALSO, FIRST PREMIUM

AT THE SAN FRANCISCO BAY DISTRICT AGRICULTURAL FAIR, 1862.

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44 LEIDESDORFF STREET,

OPPOSITE WHAT CHEER HOUSE.

WOOL

SOLD ON COMMISSION,

AND MONEY ADVANCED THEREON, BY

H. HANSSMANN,

No. 220 Front Street,

SAN FRANCISCO

PACIFIC MAIL STEAMSHIP COMPANY.

NOTICE.

UNTIL FURTHER NOTICE, the Steamers of the Pacific Mail Steamship Company will hereafter be despatched on the

3d, 13th and 23d of each Month.

When any of the above dates fall on Sunday, the Steamer will be despatched on the preceding Saturday.

A. B. FORBES, Agent.

RAMS.

PURE THOROUGHBRED SAXON AND AUSTRALIAN MERINO RAMS, for sale by

EUGENE SHERWOOD,

Sausal Rancho, Monterey Co.

DIGEST OF THE

LIBRARY REGULATIONS.

No book shall be taken from the Library without the record of the Librarian.

No person shall be allowed to retain more than five volumes at any one time, unless by special vote of the Council.

Books may be kept out one calendar month; no longer without renewal, and renewal may not be granted more than twice.

A fine of five cents per day incurred for every volume not returned within the time specified by the rules.

The Librarian may demand the return of a book after the expiration of ten days from the date of borrowing.

Certain books, so designated, cannot be taken from the Library without special permission.

All books must be returned at least two weeks previous to the Annual Meeting.

Each member is responsible for all injury or loss of books charged to his name.